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Field-to-Stream Transport of Agricultural Chemicals and Sediment in an Iowa Watershed Part I: Data Base for Model Testing (1976-1978)

Iowa Agricultural and Home Economics Experiment Station, Ames

Prepared for

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16. ABSTRACT

Data on the field-to-stream transport of sediment and chemicals from an agricultural watershed were collected in a 3-year study to provide information for testing and evaluating mathematical models under development for predicting agricultural nonpoint source pollution. These models are prepared as tools to evaluate the effectiveness of different farm management practices in controlling losses of nutrients, pesticides, and sediment in field drainage to receiving waters. In the study, data were collected for small corn, soybean, and pasture fields; for two larger mixed-cover watersheds; and at three drainage-stream sites.

Average annual pesticide losses from the fields were least for the shortest-lived herbicide (0.2 % of quantity applied) and greatest for the most persistent (1.6%). No runoff event occurred within a week of application. On the basis of percentage applied losses or export from the watershed as a whole were about 25% of the losses from the two individual fields studied. With the exception of the strongly adsorbed paraquat, at least 80% of the losses occurred in the water phase as opposed to that adsorbed on sediment.

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FIELD-TO-STREAM TRANSPORT OF AGRICULTURAL CHEMICALS AND SEDIMENT IN AN IOWA WATERSHED
Part I: Data Base for Model Testing (1976-1978)

by

H.P. Johnson and J.L. Baker
Department of Agricultural Engineering
Iowa Agriculture and Home Economics Experiment Station
Iowa State University
Ames, Iowa 50011

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Project Officers

C.N. Smith and W.R. Payne, Jr.
Environmental Research Laboratory
Athens, Georgia 30613

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ABSTRACT

This project, conducted by staff from the Iowa Agriculture and Home Economics Experiment Station, with herbicide analyses performed by the U.S. EPA Environmental Research Laboratory in Athens, GA, was designed to provide a data base and additional understanding on the field-to-stream transport of sediment, nutrients and pesticides with drainage from a 5055 ha agricultural watershed. Information gained was to be used in the development and testing of mathematical models which could be used to predict sediment and chemical losses with agricultural drainage to receiving waters under a variety of conditions. The models would provide a tool to evaluate the effectiveness of different farm management practices in controlling sediment and chemical losses.

Data were collected from three small single cover fields (corn, soybeans and pasture; 5.0 to 6.4 ha each), on two mixed cover intra-basin watersheds (150 and 285 ha), and at three stream stations (drainage areas of 350, 3575 and 5055 ha). For the three years studied (1976-1978), an average 77% of the whole 5055 ha watershed was row-cropped (corn and soybeans); 97 and 17% of the corn and soybeans, respectively, were fertilized; 98 and 95%, respectively, were treated with herbicides; and 73% of the corn was treated with insecticides. The average rate of N application on fertilized corn was 166 kg/ha; the average rate of P application on fertilized corn and soybeans was 24 kg/ha. Nine herbicides accounted for over 95% (by mass) of the herbicides used; five insecticides accounted for over 98% of the insecticides. About 1% of the watershed was terraced; a few farmers used conservation tillage, contouring and strip-cropping.

Precipitation for the three year study averaged 753 mm/yr, somewhat below the long term average of about 820 mm; included within this period was a twelve month interval with only 461 mm of precipitation. Average streamflow from the whole watershed was 124 mm, below the long term average of about 150 mm/yr. Surface runoff from the two small row-cropped fields averaged 36 mm, of which over 50% was snowmelt; the same was found for the pasture watershed, which averaged 9 mm of surface runoff. Annual sediment yields from the pasture, soybean and corn fields averaged 0.03, 1.3 and 4.5 t/ha, respectively; from the whole watershed, 0.9 t/ha. No severe storms occurred during the study period.

In general, concentrations of NH_4-N and PO_4-P were higher in surface runoff water than in subsurface drainage; the reverse was found for NO_3-N, Cl and total dissolved solids (TDS). Average surface runoff losses from pasture, corn and soybean fields of NH_4-N, NO_3-N, PO_4-P, Cl and TDS were 0.1, 0.8, 0.07, 1.3 and 30 kg/ha, respectively, and were less than the amounts deposited with

precipitation (6.1, 6.4, 0.36, 12.8 and 346 kg/ha/yr). The amounts lost annually with streamflow, including shallow subsurface drainage and base flow, were 0.4, 12.1, 0.12, 17.7 and 345 kg/ha. Concentrations of N and P associated with sediment were somewhat dependent on the concentration of sediment in runoff; the higher the sediment concentration, the lower the nutrient concentration in the sediment. On average, about 2 kg of N and 1 kg of P were lost per tonne of sediment.

The herbicides alachlor, metribuzin and paraquat were soil applied without incorporation at planting to the soybean watershed; similarly, propachlor, cyanazine and paraquat were applied to the corn watershed. At no time during the study did a runoff event occur less than one week after pesticide application, and therefore runoff losses were low. Average annual losses for alachlor, metribuzin, propachlor, cyanazine and paraquat were 0.3, 0.4, 0.2, 0.6 and 1.6% of that applied, respectively. Soil sampling showed that the applied herbicide remained concentrated in the surface 7.5 cm and, with the exception of paraquat, had disappeared within one year. The runoff losses were least for the shortest-lived herbicide (propachlor) and greatest for the most persistent (paraquat). Over 80% of the herbicide losses occurred in the solution phase, with the exception of paraquat which, because of its strong adsorption to soil, was lost only with sediment. Losses of the five herbicides with streamflow from the whole watershed, on a percent of applied basis, were about ¼ of the edge-of-field losses.

Stream cross sectional areas were measured at several points to determine what portion of the total sediment load could be ascribed to bank erosion and/or channel degradation. Comparison with measurements made in a previous study indicated that about 25% of the sediment transported from the watershed came from the channel.

This report was submitted in fulfillment of Grant No. R-804102 by Iowa State University under the sponsorship of the U.S. Environmental Protection Agency. This reportcovers the period July 1975 to December 1979, and work was completed as of July 1981.

CONTENTS

	Page
Disclaimer	ii
Abstract	iii
Acknowledgements	vii
1. Introduction	1
2. Conclusions	3
Runoff	3
Sediment Losses	3
Nutrient Losses	3
Pesticide Losses	4
General	4
3. Recommendations	5
4. Description of Study Area	6
The Region	6
The Study Area	8
5. Watershed Instrumentation	12
Meteorological Instrumentation	12
Gaging Instrumentation	12
Sampling Instrumentation	19
6. Study Components - Design and Procedure	22
Agronomic and Cultural Practices	22
Groundwater and Channel System	32
Watershed Sampling	32
Analysis Methods	44
Crop Inventory, Canopy Development and Yields	46
Data Reduction, Processing and Computations	46
7. Results and Discussion	52
Weather	52
Crops Grown in the Study Area	54
Hydrology	55
Sedimentation	63
Nutrients	83
Pesticides	105
References	121
Appendices	
A. Crop and Livestock Inventory of Four Mile Creek Watershed	122
B. Precipitation and Weather Measurements	139
C. Crop Leaf Canopy, Crop Yield and Tillage Operations	289
D. Stream Flow and Runoff Data	294
E. Sedimentation, Particle Size and Stream Cross Section Measurements	378

Table of Contents (continued)

		Page
F.	Nutrient, Dissolved Solids and Sediment Data	427
G.	Pesticide Measurements	518
H.	Watershed Instrumentation, Field Operations and Soil Sampling Schedule	561

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J.E. Benner, research physical science technician, Athens Environmental Research Laboratory, USEPA, provided assistance in conducting pesticide analyses in soil, sediment and water.

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M.A. Borcherding, research associate, was the field manager on the project responsible for the physical installations and their day-to-day operation. He was also involved with hydrology, sediment, and nutrient data analyses, and responsible for the farmer interviews and watershed inventory.

K.R. Helmlinger, research associate, was responsible for calculations and organization of the large amount of data generated.

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N.E. Rasmussen, research associate, was responsible for nutrient analyses.

G.E. Smith, research associate, was responsible for data reduction and handling, as well as assisting with report editing and nutrient analyses.

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D. Johanson, and later L. Schultz, laboratory technicians, were responsible for sample inventory and organization, and nutrient analyses.

The staff also recognized the contribution of the area farmers; Larry Vest and Ken Bru provided sampling assistance; Virgil Volkens and Earl Dinsdale allowed establishment of field sites on their land; others provided rain gage sites; farmers in the watershed cooperated by providing data for the watershed inventory.

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SECTION 1

INTRODUCTION

In spite of increased concern about pollution from agricultural land drainage and associated land erosion, some trends in agriculture since 1970 tend to increase nonpoint source pollution. The percentage of row-cropped land, the average fertilizer application per hectare, and the area treated with pesticides have all increased. Other trends, however, such as increasing use of reduced tillage, and use of herbicides and insecticides with shorter half-lives, tend to reduce pollution from agricultural land.

During this same decade, environmental scientists and engineers have accepted simulation modelling as a technique for predicting impacts of weather and management changes on the quality of agricultural drainage to receiving waters. Because of the cost and difficulty of obtaining data, however, relatively few detailed nonpoint water quality studies can be initiated. Simulation modelling is often used to extrapolate to ungaged watersheds, with the aid of calibration and verification using data from instrumented watersheds. Supporting data are essential. Model verification has not always been possible, however, leaving doubts about the model's usefulness. Models of particular interest are ARM (agricultural runoff management), HSPF (hydrologic simulation program, Fortran), and CREAMS (chemicals, runoff, and erosion from agricultural management systems).

Some of the data needed for simulation modelling are commonly available; some seldom available. Water flow and quality data from either rivers or small plots, obtained separately, are relatively common; data sets combining water flow and quality that define areal and temporal changes from the field to the stream are rare, but are needed to develop, calibrate and verify deterministic models.

The primary objective of the study reported herein was to collect data on hydrology, and on sediment, nutrient and pesticide transport from intensively cropped agricultural watersheds ranging in size from a few hectares to about 50 km^2. The secondary objective was to use the data in development, calibration, and verification of simulation models.

The study area is located in the upper portion of the Four Mile Creek watershed in northwest Tama County, Iowa. The study encompassed collection of data on precipitation, on surface and subsurface flow, and on sediment, nutrient and herbicide concentrations. Data on cropping, fertilizer application and pesticide application on the watershed were obtained through farmer interviews. The soil profile was sampled in small experimental watersheds

to determine the location and amount of nitrogen, phosphorus and selected herbicides in the soil profile.

The project was planned to enable cooperation among the U.S. Environmental Protection Agency (EPA), the Iowa State University Experiment Station, and other EPA supported contractors. Field work, chemical analyses, and data processing and analyses were the responsibility of Iowa State University (ISU) and the EPA.

Cooperation of staff at ISU and EPA's Environmental Research Laboratory in Athens, Georgia, involved planning, research coordination, data collection, and physical and chemical analyses. The ISU staff was responsible for the field hydrology, nutrient chemistry, and land management aspects. The EPA completed the pesticide analyses and provided early guidance in the field sampling techniques. Farmer interviews were conducted by ISU staff. Flow measurements on the larger watersheds were made by the U.S. Geological Survey (USGS) staff located at Iowa City, Iowa.

For a project of this scale, cooperation of farm people in the study area was essential. Six land owners permitted installation of measuring and sampling stations and/or rain gages on their land, and three local farmers aided in storm flow sampling.

The study period, which included the calendar years 1976 through 1978, was one of below average rainfall. From fall of 1976 through July 1977 rainfall was much less than normal, producing less than normal runoff in the study area. Snowmelt runoff, however, was substantial in the spring of 1978.

SECTION 2

CONCLUSIONS

RUNOFF

-- Snowmelt can be a significant portion of annual surface runoff, in some cases more than 50% of total amounts.

-- Recent tillage, especially conventional or chisel plowing, is an important factor affecting the amount of surface runoff.

-- Quality and type of cover, especially that provided by permanent meadows, greatly affect surface runoff from rainstorms.

-- Good rainfall distribution data are critical to modelling runoff, both areally and with time (time increments of five min or less are useful).

SEDIMENT LOSSES

-- Sediment losses from pasture were very low (<50 kg/ha per year), as expected.

-- Higher sediment concentrations were associated with larger particle sizes for cropped watersheds.

-- Sediment sizes and loads were very sensitive to rainfall intensity. For a given storm, on a relative basis the finest sediment size was not found in the major stream in the watershed; rather, the finest was contained in runoff from which some sediment had been trapped above a culvert, fence lines, and a good grassed waterway. The coarsest was directly from the small cropped watersheds.

-- The sediment load at the 5055 ha watershed outlet for the three years (average of 900 kg/ha-yr) was about one-third that for the small row-crop watersheds (about 75% of the whole watershed was row-cropped).

-- Streambank erosion accounted for a significant portion of sediment load at the watershed outlet (up to 25%).

NUTRIENT LOSSES

-- Nutrient amounts deposited with precipitation were significant relative to soluble nutrient losses with creek flow (in the case of NH_4-N and

PO_4-P, 15 and 1 times greater, respectively; for NO_3, deposition was 40% of that lost with creek flow.

-- A large portion of NH_4-N and PO_4-P losses occurred with snowmelt (in one year over 75%).

-- NO_3-N losses at the watershed outlet were large (up to 22 kg/ha) and were associated primarily with subsurface drainage water.

-- PO_4-P concentrations were highest from the pasture where manure, P fertilizer and decaying vegetation were at the surface. PO_4-P concentrations in runoff were higher when P fertilizer was incorporated only by disking (relative to plowing under) on the cropped watersheds.

-- Nutrients lost with sediment depended on erosion rates, and generally exceeded nutrient loads dissolved in surface runoff from cropped watersheds.

PESTICIDE LOSSES

-- If severe storms did not occur within two weeks after application, pesticide losses were low for the short lived herbicides studied (less than 1% of the alachlor, cyanazine, metribuzin and propachlor applied). Most losses were in water (excepting paraquat). Erosion control alone, therefore, will not control pesticide runoff losses.

-- The limited data indicate there is attenuation of losses between field and stream.

GENERAL

-- Inventory data collected during the study showed a trend of more intensive agricultural production (more row-crops, greater chemical use).

SECTION 3

RECOMMENDATIONS

-- Research on methods of nitrogen management to improve efficiency of use and decrease losses is needed (i.e. timing, amount, method of application, additives, etc.).

-- Research on methods of phosphorus incorporation to reduce the amount on the soil surface and decrease losses is needed (particularly in no-till and pasture situations).

-- Additional study on the relationships between soil particle size, transportability, and chemical concentrations associated with the soil is needed.

-- The impact of recent tillage, especially conventional or chisel plowing, on runoff amounts needs to be further defined.

-- Better methods of pesticide application need to be devised to decrease losses (particularly application losses on windy days). Incorporation can significantly reduce runoff losses of pesticides.

-- Means to implement Best Management Practices (BMPs) relative to chemical use and application need to be devised (similar to the means of implementation of soil conservation practices).

-- The contribution of channel erosion relative to total erosion needs study; very few data are available. Observations in Iowa indicate large increases in cross section in several Iowa streams.

-- Additional study of the relative contributions of surface runoff, tile drainage, and base flow to total runoff is needed because pollutant sources are associated with each.

SECTION 4

DESCRIPTION OF STUDY AREA

THE REGION

The Four Mile Creek watershed is contained within the Iowa-Cedar river basins in the eastern half of Iowa (Figure 1). Two approximately parallel rivers, the Iowa and the Cedar, flow to the southeast before converging and flowing into the Mississippi River below Muscatine, Iowa. The entire basin contains 33,600 km^2, about one-fourth of the area of Iowa. Detailed description of the water and land resources in the basin is presented in a USDA study (1976).

The climate of the area is of the continental type. The average annual temperature is 8.5 °C; the average growing season is about 150 days. Normal annual precipitation varies from 76 cm in the northwest to 91.5 cm in the southeast; annual snowfall varies from 122 cm in the northwest to 61 cm in the southeast. Nearly three-fourths of the average annual precipitation occur during the growing season. The mean temperature in June, July and August varies from 16.5 to 17.8 °C.

The valleys of the basin are in glacial topography, and the land surface features indicate multiple glaciation. The headwaters rise in recently glaciated, poorly drained lands represented by Land Resource Area 103 (Central Iowa and Minnesota Till Prairies). Land Resource Area 104 (Eastern Iowa and Minnesota Till Prairies) covers the northeast portion of the basin, and is gently rolling but often needs drainage. The part of the basin in which Four Mile Creek is located is represented by Land Resource Area 108, the Illinois and Iowa Deep Loess Drift. Erosion is a serious problem on more sloping areas.

The average annual runoff for the basin varies from 12.5 cm in the north to 20 cm in the south. Highest annual floods usually occur with snowmelt (March) and from storms in June and July. Groundwater supplies are plentiful and generally of good quality, although some shallow aquifers contain poor water quality. Deep aquifers are of porous or creviced bedrock; large wells can yield 4000 to 13,000 liters per min of high quality water, and domestic wells produce about 40 to 150 liters per min.

The Iowa-Cedar basin agricultural land use is dominantly row-crop grain production. About 79% of the area is cropped; over 60% is in corn and soybeans. The northern third of the basin was recently glaciated, and was drained for agricultural purposes. Pasture and forest areas represent 8 and

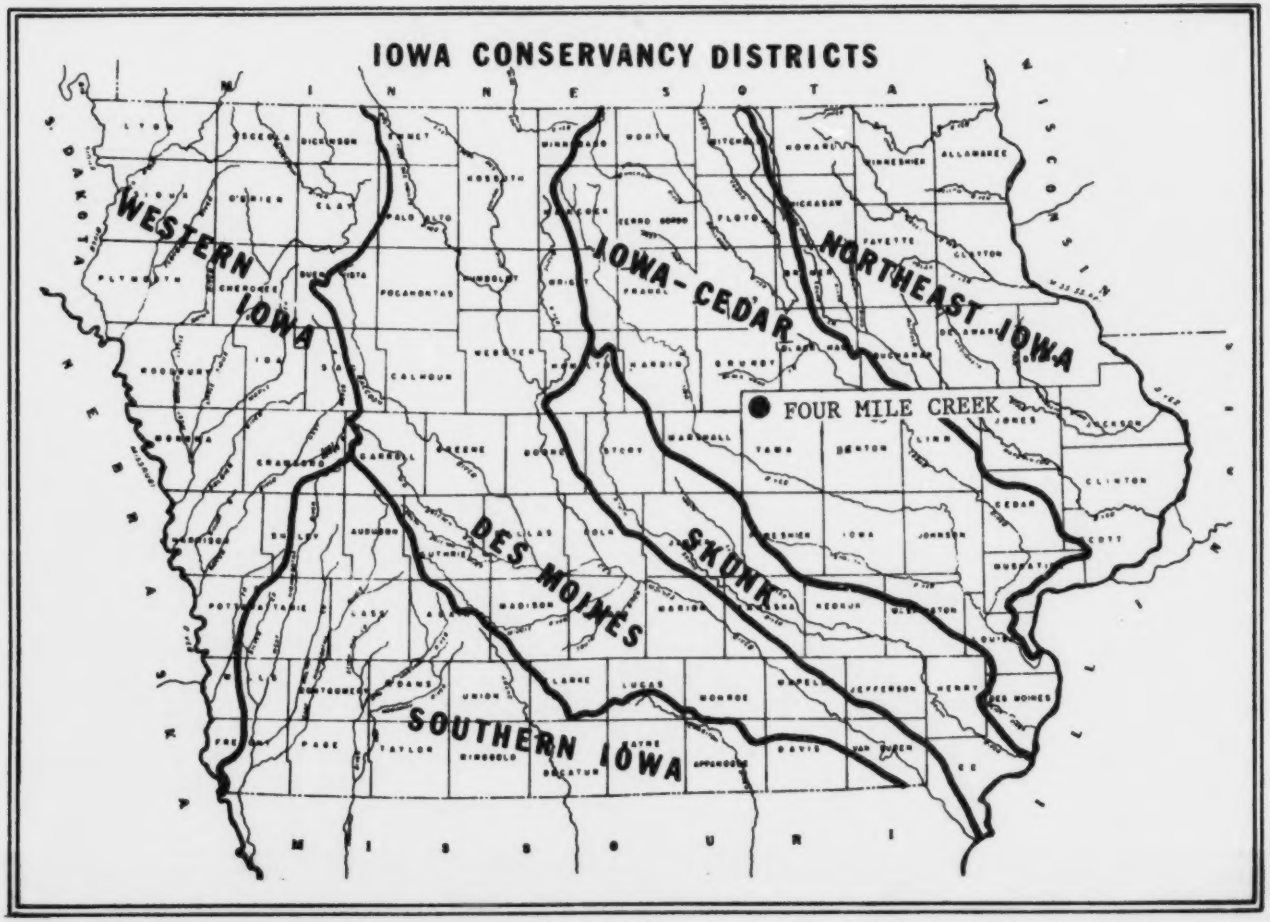


Figure 1. Location of Four Mile Creek watershed within the Iowa-Cedar River Conservancy District.

4% of the land, respectively. Forested bottom lands along streams provide diversity and recreation. Streams are classified primarily as warm water recreation.

THE STUDY AREA

The Four Mile Creek watershed, northwestern Tama County, is located at 42°12'N latitude and 92°35' W longitude. The watershed, which has a northwest-southeast orientation, is about 3.5 km wide and about 15 km long (Figures 2 and 3). The topographic features of the watershed are related to glaciation, and subsequent modification during recent time. Glacial deposits (Kansan till) mantle the bedrock to a maximum thickness of about 110 m. An overlying loess mantle (Wisconsin loess) covers most of the till; the loess may be as much as 10 m deep along the drainage divides, but thins along the valley sides.

The watershed is typical of the heavily cropped areas of Iowa where drainage is well developed. The sea level elevation varies from about 276 m in the channel at the outlet, to about 325 m in the upland areas of the watershed. The average water yield for the 15 years of record is 190 mm; the average discharge is 0.31 m^3/s. Flood discharges of about 30 m^3/s have been reported for the 50.5 km^2 area. Sediment yields are about 100 tonne/km^2, but vary among small watersheds. Drain tile have been installed along the waterways, in some fields in the floodplain along the main channel, and in some of the upper regions of the watershed with less sloping topography. A small percentage of the land in the watershed is terraced. Some farmers use conservation tillage, contouring and strip cropping; interest in minimum tillage has increased in recent years.

The agricultural watershed is heavily cropped, about 75% being in corn or soybeans (Appendix A). A small percentage of the land along the lower end of the creek and in the steeper areas of the watershed is in permanent grass and woods. Farmers usually plow land previously cropped in corn, and disk land previously cropped in beans. Most farmers apply herbicides; all apply fertilizer.

The soil survey shows fifteen soil types in the area. Six soils, Tama, Muscatine, Downs, Fayette, Colo, and Judson silt loams account for 93% of the mapping units. Typical slopes, maximum slopes (in parentheses) and slope lengths for these six soils in order are: 2-5%, (20%), 120 meters; 1-3%, (4%), 140 meters; 2-5%, (25%), 90 meters; 2-5%, (30%), 60 meters; 0-2%, (2%), 40 meters or less, and 2-5%, (9%), 120 meters.

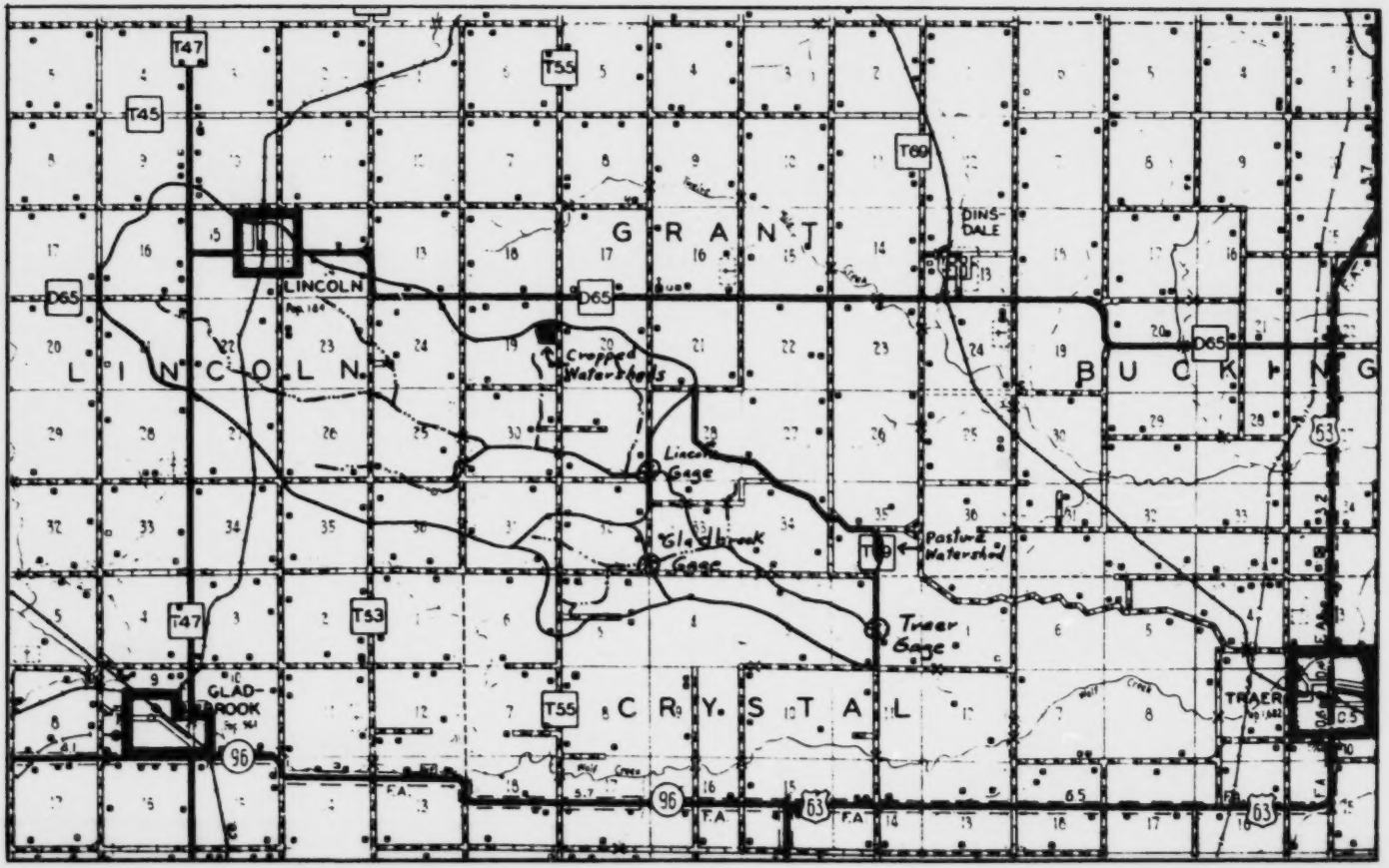


Figure 2. County highway map of the Four Mile Creek area.

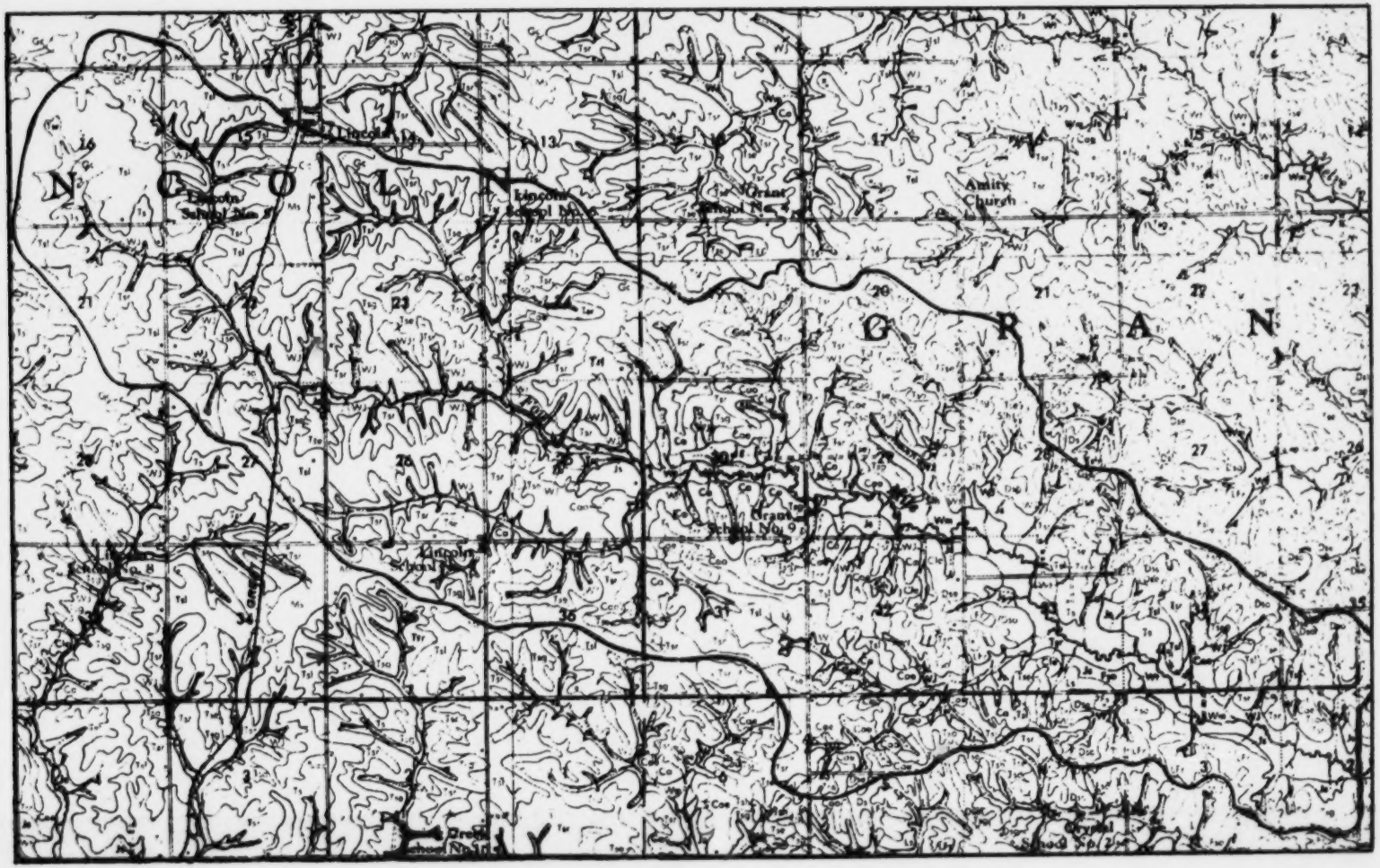


Figure 3. Soil map of Four Mile Creek watershed.

Four Mile Creek Soil Map Legend

Formed from loess

Gc - Garwin, silty clay loam
Ms - Muscatine, silt loam
Tsl - Tama silt loam,level phase (1-3% slopes)
Ts - Tama silt loam (3-8% slopes)
Tsr - Tama silt loam, eroded phase (3-8% slopes)
Tsg - Tama silt loam, gently rolling phase (8-12% slopes)
Tse - Tama silt loam, eroded gently rolling phase (8-12% slopes)
Tso - Tama silt loam, eroded rolling phase (12-16% slopes)
Tsh - Tama silt loam, eroded hilly phase (16% slopes and over)
Dsl - Downs silt loam, level phase (1-3% slopes)
Ds - Downs silt loam (3-8% slopes)
Dse - Downs silt loam, eroded gently rolling phase (8-12% slopes)
Dso - Downs silt loam, eroded rolling phase (12-16% slopes)
Fs - Fayette silt loam (3-8% slopes)
Fsl - Fayette silt loam, level phase (1-3% slopes)
Fso - Fayette silt loam, eroded rolling phase (12-16% slopes)

Formed from shallow loess over glacial till,or glacial till

Cl - Kenyon loam (3-8% slopes)
Ca - Kenyon silt loam (3-8% slopes)
Cle - Kenyon loam, eroded gently rolling phase (8-12% slopes)
Cae - Kenyon silt loam, eroded gently rolling phase (8-12% slopes)
Cao - Kenyon silt loam, eroded rolling phase (12-16% slopes)
Sl - Shelby loam (8-16% slopes)
Slh - Shelby loam, eroded hilly phase (16% slopes and over)
LFr - Lindley-Fayette silt loams, eroded phases (16% slopes and over)
Ls - Lindley silt loam (12-16% slopes)

Formed from alluvial and colluvial materials

Wt - Wiota silt loam
Js - Judson silt loam
Wa - Colo silty clay loam
Wj - Colo-Judson silt loams
Wm - Colo silt loam

SECTION 5

WATERSHED INSTRUMENTATION

METEOROLOGICAL INSTRUMENTATION

Meteorological data were collected during the study at various points in or near the watershed, and are presented in Appendix B. A weather station was established at the cooperator's farm (Figures 4 and 5), and precipitation, maximum and minimum temperatures, humidity, pan evaporation and solar radiation were recorded daily.

Recording rain gages were set up at five locations throughout the watershed (Figure 4) to record precipitation during the runoff season. During the winter months precipitation was measured by snow gages at site 1 and the weather station (Figure 6).

Soil temperatures were monitored at site 1 and the weather station during winter months (Figure 7). Thermometers were inserted into the ground at various depths and read periodically, timing and depth of frost being established from these data, because of their influence on subsurface drainage.

GAGING INSTRUMENTATION

Creek flow and runoff were monitored at eight sites within the Four Mile Creek basin (Figure 4). The three sites monitoring creek flow (sites 4, 5, and 6; Figures 8 through 11) were constructed in 1962, and have been maintained continuously (except during 1975) by the USGS. The stations consist of concrete controls with metal weir plates. Rating curves were established and updated periodically by the USGS.

The five additional stations for monitoring surface runoff were constructed and maintained by ISU personnel. A 1.22 m H-L, stainless steel flume was installed at each of sites 1, 2, and 3 in the fall of 1975 (Figures 12 and 13). A plywood approach box was constructed on the upstream edge of each flume to mix the runoff, and provide a symmetrical approach and a location where a sampler intake could withdraw a well mixed sample. Two FW-1 stage recorders, one with a 6-h and one with a 24-h clock rotation were installed on each of the flumes. Sites 7 and 8 were located in the summer of 1976 at a box culvert and a road culvert, respectively (Figures 14 and 15), and an FW-1 stage recorder was installed at each of these stations. A steel weir plate was also installed at site 8 in 1978 to improve gaging accuracy.

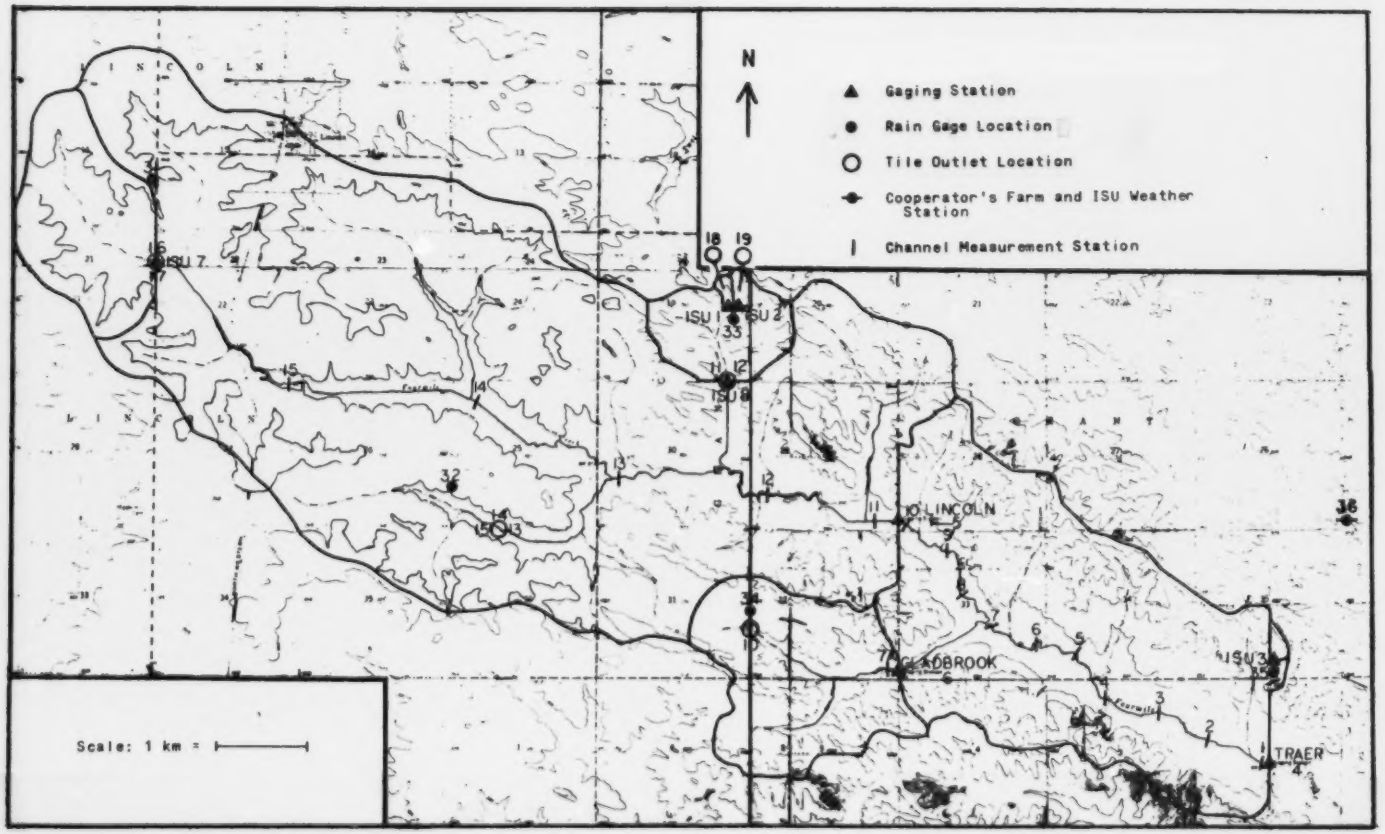


Figure 4. Four Mile Creek watershed instrumentation.

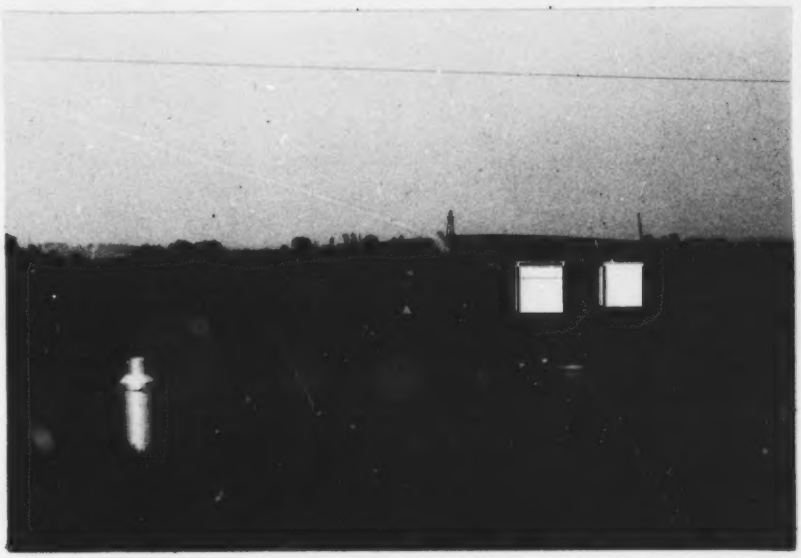


Figure 5. ISU weather station at cooperator's farm.

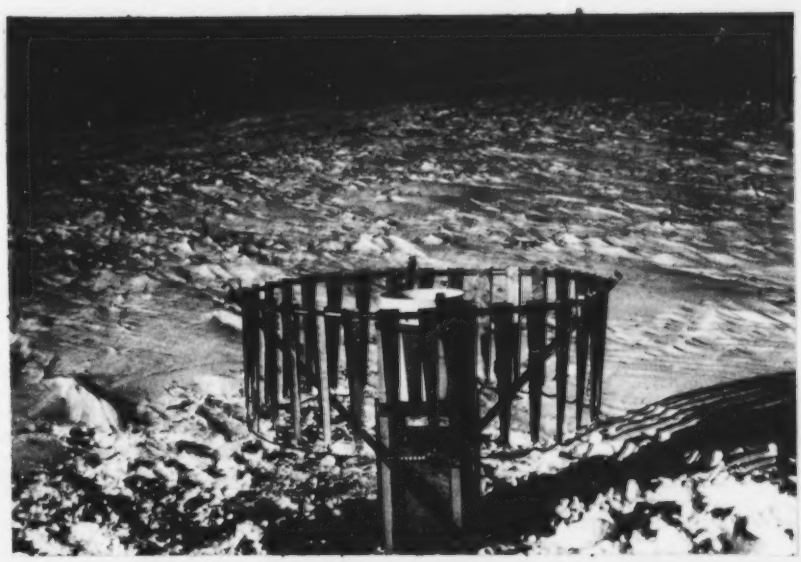


Figure 6. Snow gage at site 1.

Figure 7. Thermometers for monitoring soil temperatures.

Figure 8. Traer gaging station (USGS #5464137; ISU site 4).

Figure 9. Farm cooperator operating a US D-74 depth-integrating sampler, suspended from the bridge railing at site 4.

Figure 10. Lincoln gaging station (USGS #5464130; ISU site 5).

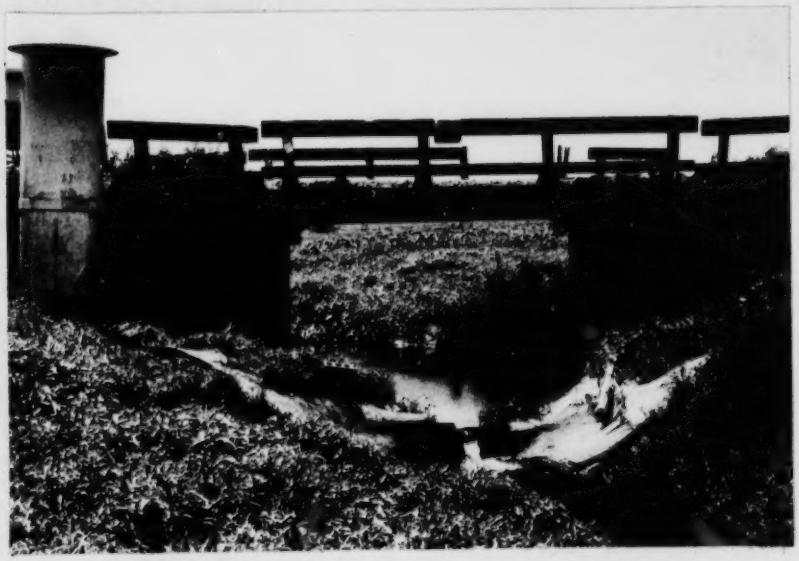


Figure 11. Gladbrook gaging station (USGS #5464133; ISU site 6).

Figure 12. ISU gaging station, site 3 (permanent pasture cover).

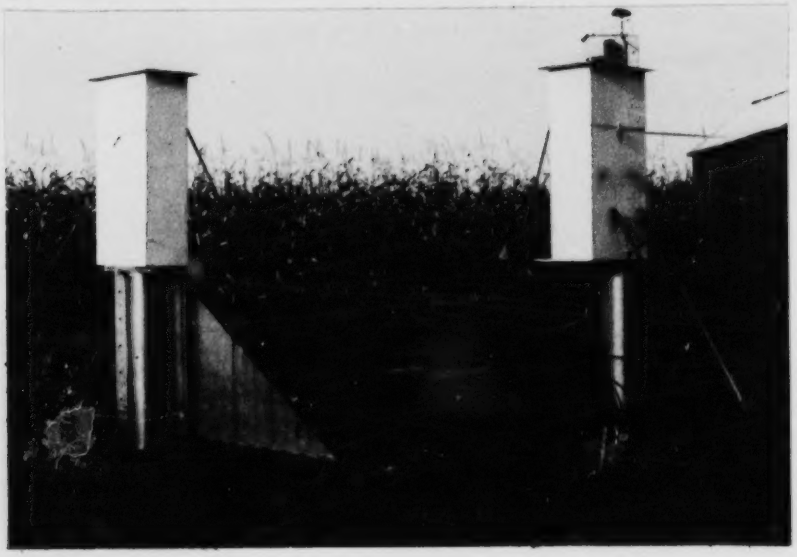


Figure 13. Flume at ISU gaging station, site 2.

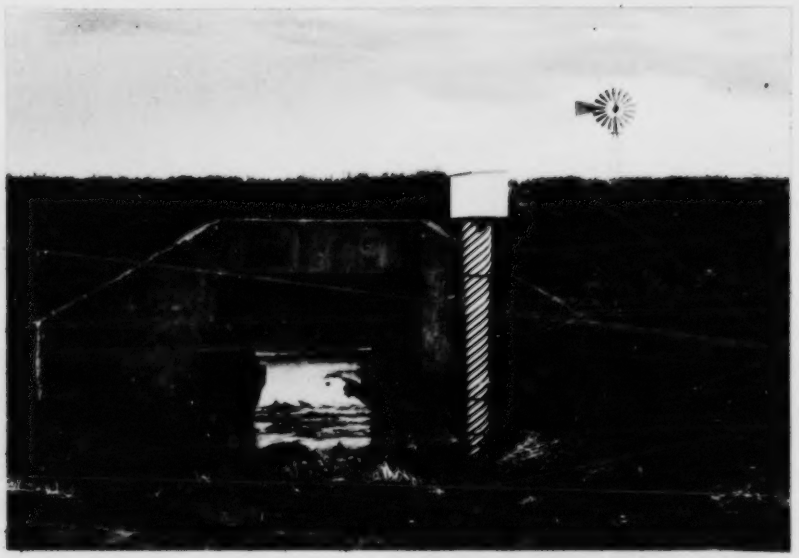


Figure 14. ISU gaging site 7.

SAMPLING INSTRUMENTATION

Samples of surface runoff were collected at sites 1, 2, and 3 by PS-69 automatic pump samplers, remodelled to take four-liter samples at 2-min intervals. Racks were built inside chest freezers converted to refrigerators to hold glass sample bottles, and glass tubing was constructed to convey the samples into the refrigerated bottles from the sampler (Figure 16). Stainless steel well points (Figure 17) were used as intakes for the PS-69 samplers. The well points were fastened approximately 3 cm above the floor of the plywood approach box. Five ports, at various heights, were installed on one wall of each flume, allowing runoff water to flow into bottles as the water rose in the flumes, providing additional samples of runoff water in the event of failure of the automatic samplers (Figure 18).

Samples of creek flow, surface runoff (sites 4 to 8) and tile flow, were taken by hand or with a hand-held depth-integrating sampler, US DH-48. In addition, a US D-74 depth-integrating sampler was installed, with a winch, on the bridge at site 4, to be used when taking samples during higher stages at that site (Figure 9).

A collection device with automatic cover was also installed at site 2 to take large samples of precipitation.

Appendix H includes schedules of watershed instrumentation, field operations and soil sampling.

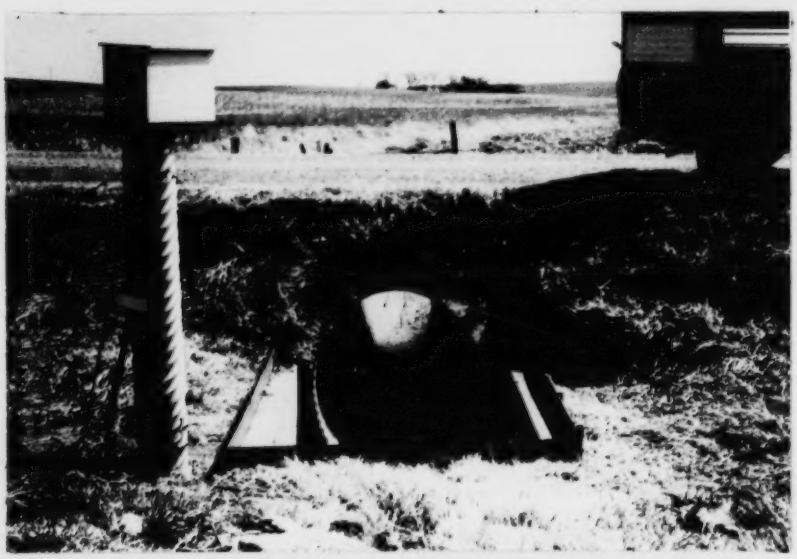


Figure 15. ISU gaging site 8.

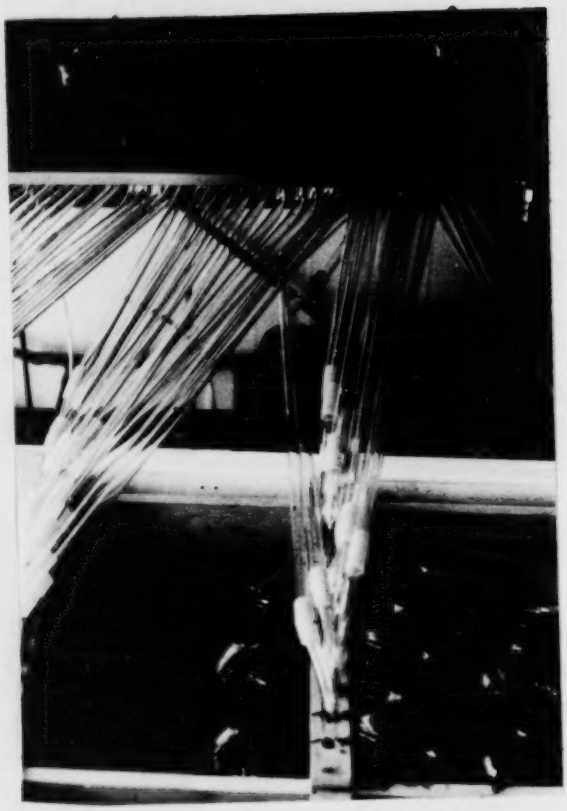


Figure 16. PS-69 interagency automatic sampler converted to take 4-liter samples, shown with distribution tubes and sample bottles.

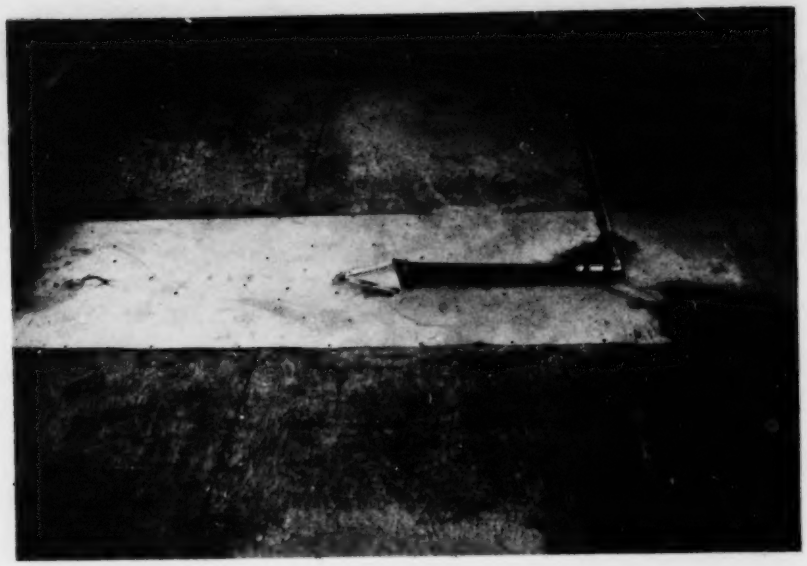


Figure 17. Sampler intake used with the PS-69 automatic samplers at sites 1, 2 and 3.

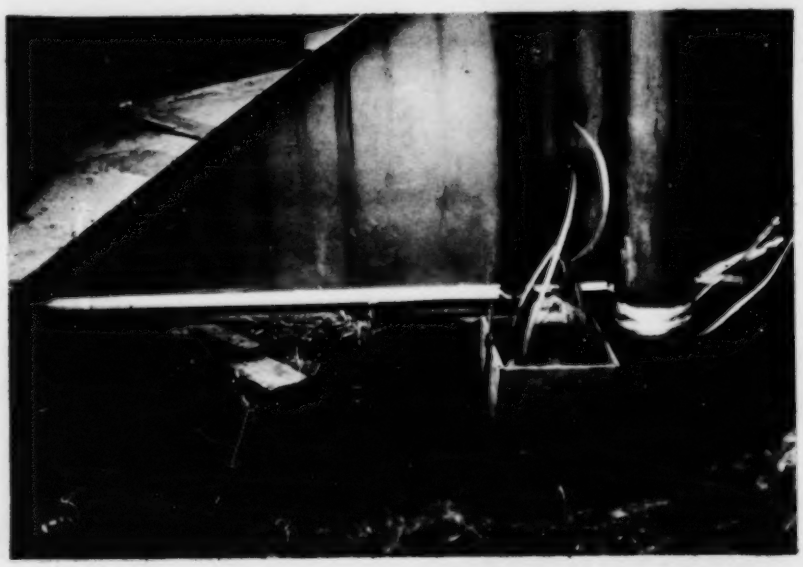


Figure 18. Single stage sampling ports with sample bottles, used at sites 1, 2 and 3.

SECTION 6

STUDY COMPONENTS - DESIGN AND PROCEDURE

The dominant effort of the Iowa Agriculture Experiment Station was the collection, reduction and processing of field and laboratory data as reported herein. The approach was to instrument several watersheds nested within the Four Mile Creek watershed, to measure inputs and outputs related to transport of sediment, nutrients and pesticides from field to stream. Watersheds ranged in size from 5 to 5055 ha, and represented single cover (row-crop or grass) and mixed cover areas. Inputs and outputs were evaluated by measurement, sampling and analyses of precipitation, runoff, soil moisture, nutrient and pesticide loads and vegetative cover. Data relating to channel geometry, and stream bank and bed soil particle size were collected. Sediment and nutrient analyses, dissolved and particulate related, were performed in an Agricultural Engineering laboratory and, in some instances, in the Engineering Research Institute laboratory (ISU). Pesticide analyses were performed at the Environmental Research Laboratory, Athens.

AGRONOMIC AND CULTURAL PRACTICES

Single Cover Watersheds

The watersheds at sites 1 and 2 were planted to row-crops each year of the study (Figure 19). During the first year of the study (1976) soybeans were grown at site 1 and corn at site 2; these crops were alternated between the two sites each year. The watershed at site 3 was in permanent pasture throughout the study (Figure 20).

Conventional tillage, typical of that used in a large portion of the Midwest, was used at sites 1 and 2. No erosion control practices, other than grassed waterways, were used. Cornstalks were plowed with a moldboard plow in the spring in preparation for planting of soybeans, and soybean stubble was disked in preparation for corn planting. The corn and soybean crops were planted with 96 cm inter-row spacings. One or two cultivations were also completed during early crop growing stages for additional weed control. A timetable of tillage operations at sites 1 and 2 is presented in Appendix C.

Fertilizer Application --

Fertilizer was applied to sites 1 and 2 each spring before plowing or disking (Figures 21 through 23). The field to be planted to corn (Figure 24) received 135 kg/ha of N, 39 kg/ha of P, 65 kg/ha of K, 22 kg/ha of sulfur, and 6 kg/ha of zinc. The field to be planted to soybeans received 34 kg/ha

Figure 19. Aerial photograph of sites 1 and 2.

Figure 20. Aerial photograph of site 3.

Figure 21. Fertilizer application at site 2.

Figure 22. Incorporating fertilizer and cornstalk residue with a moldboard plow at site 2.

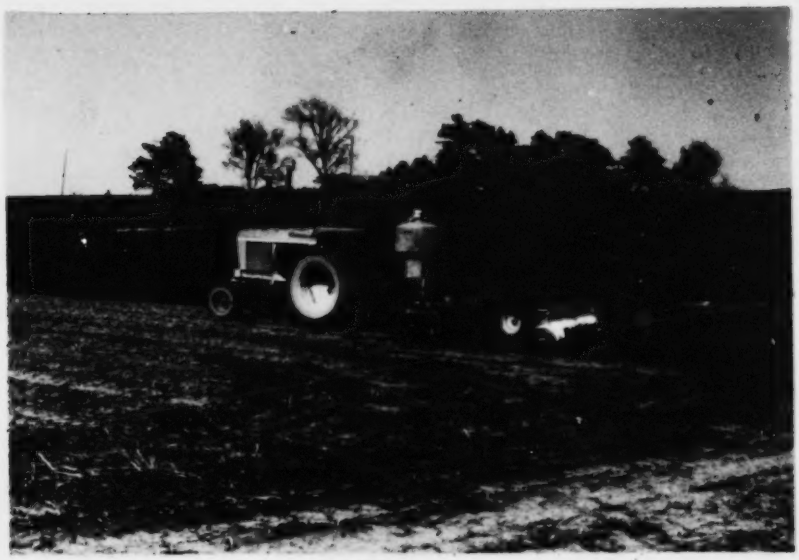


Figure 23. Incorporating fertilizer and soybean residue with a disk at site 2.

Figure 24. Planting corn at site 1.

of P and 56 kg/ha of K. The fertilizer application rates remained constant for both crops each year of the study, except during the third year (1978), when no sulfur or zinc was applied.

Fertilizer was applied to the pasture at site 3 in the spring of the second and third years (1977 and 1978) of the study. Surface applied to the field were 78 kg/ha of P and 19 kg/ha of K.

The fertilizer applied to sites 1, 2, and 3 was all in solid form, and was custom-applied by a local dealer. The N in the fertilizer was in the form of urea and diammonium phosphate, the P in the form of concentrated superphosphate and diammonium phosphate, and the K in the form of potassium chloride. An effort was made to measure the amount of fertilizer spread, and the results indicated that it was applied reasonably uniformly. The rate of fertilizer application required for each crop was determined from soil tests, performed by the Iowa State University soils testing laboratory.

Herbicide Application --

Herbicides were broadcast sprayed without incorporation at sites 1 and 2 by project personnel each spring, immediately after planting (Figure 25). Propachlor, cyanazine, and paraquat were applied to the field planted to corn at rates of 2.24, 2.24, and 1.12 kg/ha, respectively. Alachlor, metribuzin and paraquat were applied to the field planted to soybeans at rates of 2.24, 0.56, and 1.12 kg/ha, respectively. Table 1 lists the water solubilities and vapor pressures of the herbicides studied. To determine the amount of herbicide applied, the spray nozzles were calibrated, ground speed was recorded, and samples of the spray mixture were taken for herbicide analyses. In addition, sets of doubled 12.5 cm diameter filter paper discs were placed on the soil surface before herbicide application. The discs were passed over by the sprayer, then were quickly sealed in glass flasks for later analysis (Figure 26).

Mixed Cover Watersheds

Crops grown on the larger watersheds, sites 4 to 8 (Figures 27 and 28 for sites 7 and 8), included corn, soybeans, oats, hay, pasture and grass (government set-aside acres). Row-crops, corn and soybeans, accounted for a large portion (75%) of the crops grown in the watersheds during the three years of the study.

Several tillage methods for preparation for planting corn and soybeans were used in the watersheds. Plowing of cornstalks with a moldboard plow was used on about one-third of the row-crop area each year. Some of the plowing was done in the fall, with the rest completed in the spring. Fall chisel plowing was performed on approximately 20% of the row-crop area. Disking of cornstalks was done on about 20% of the row-crop area, leaving some residue on the surface. Most soybean stubble was disked prior to planting. One operator in the watershed used a minimum-till planter, and no one reported using no-till methods. Tillage preparation for seeding of oats and grass usually consisted of disking. No tillage was required for hay and pasture, since these were generally established during the previous season.

Figure 25. Herbicide application by project personnel at site 2.

Figure 26. Filter paper discs, used to measure herbicide application rate at sites 1 and 2.

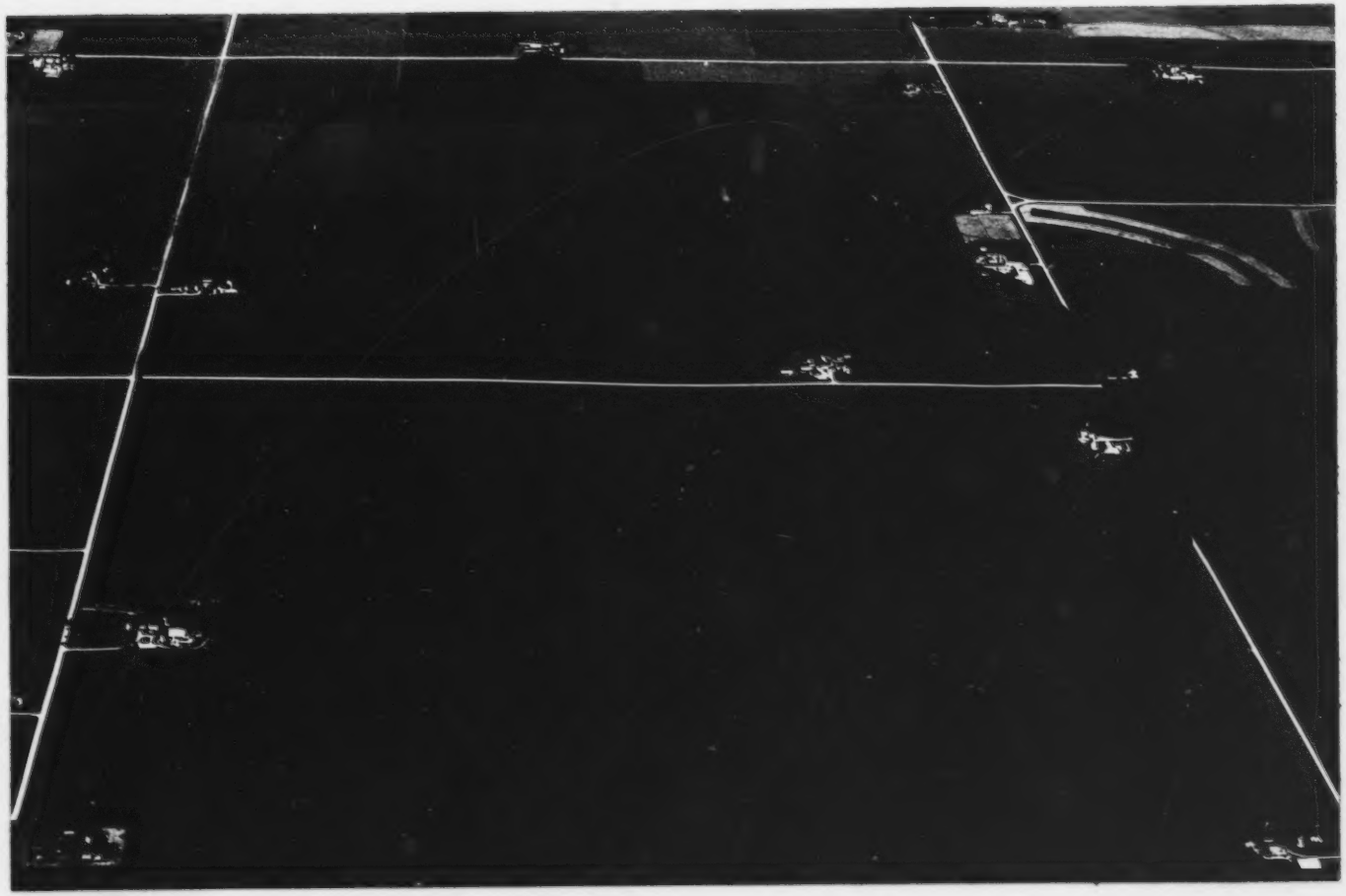


Figure 27. Aerial photograph of site 7.

Figure 28. Aerial photograph of site 8.

TABLE 1. NAMES, WATER SOLUBILITIES, AND VAPOR PRESSURES OF HERBICIDES STUDIED*

Herbicide name		Water solubility	Vapor Pressure
Trade	Common	mg/L	mm Hg at 25°C
Lasso	alachlor	242 at 25°C	2.2×10^{-5}
Aatrex	atrazine	33 at 27°C	6.5×10^{-7}
Bladex	cyanazine	171 at 20°C	4.0×10^{-9}
Sencor/Lexone	metribuzin	1220 at 20°C	1.0×10^{-5}
Paraquat	paraquat	soluble†	non-volatile
Ramrod	propachlor	580 at 20°C	2.3×10^{-4}

*Data from Herbicide Handbook, Weed Science Society of America (1974).

†Even though soluble, paraquat is not found in runoff water because of strong bonding of the positive ions to soil.

Some soil conservation measures were performed in the watershed. Contouring of rows was done on approximately 10% of the row-crop area. Strip-cropping on the contour was done on two farms, and there were several systems of terraces present in the watershed.

Fertilizer Application --

Ninety-seven percent of the corn raised in the Four Mile Creek watershed received fertilizer (Appendix A), at rates quite adequate for good yields, averaging 166 kg/ha of N, 25 kg/ha of P, and 49 kg/ha of K per year during the study. Fertilizer was used on less of the soybean area (average 17%) at rates averaging 10 kg/ha of N, 24 kg/ha of P, and 55 kg/ha of K per year. Some oats, hay and pasture also received application of commercial fertilizer. Manure produced by livestock operation provided an additional source of nutrients for some farms in the watershed.

The P and K fertilizers applied were commonly in solid form and broadcast spread on the land in the fall, after harvest, or in the spring, before planting. The solid forms most commonly used were: ammonium nitrate, concentrated superphosphate, and potassium chloride. Starter fertilizer was also used by some operators. Nitrogen fertilizer was applied mainly in the form of anhydrous ammonia, in the fall, spring or early summer (side dress application), but some N was also broadcast with the solid P and K fertilizers in the form of ammonium nitrate or urea.

Pesticide Application --

Ninety-eight percent of the corn and 95% of the soybeans raised in the watershed received some type of herbicide application, and many of the fields received a combination of two or more types of herbicide. Several methods of application - pre-plant incorporated, row-band at planting, pre-emergence and post-emergence treatments - were used in the watershed. Some of the herbicides were custom-applied by dealers, but most were handled by the farm operators themselves.

Insecticides were applied to approximately 80% (1978) of the corn in the watershed. Almost all of the insecticides were applied in a band over the row at planting time, but some were occasionally applied aerially.

GROUNDWATER AND CHANNEL SYSTEM

Geologically recent erosion and deposition make up the alluvium in the Four Mile Creek valley. About 4 to 5 m of alluvial silt and clay overlay about 5 m of sand in the floodplain at the lower end of the main stream (Kunkle, 1968). The tributaries are well developed in most of the watershed. The valley bottom averages about 400 m in width at the lower end of the watershed, and narrows to a width of about 100 m, 11 km above the gaging station. The channel is incised into the valley bottom; stream banks are nearly vertical and about 2 m above the bed on the lower end of the watershed. The stream profile is continuous with no obvious nick points. The channel inclines in a northwesterly direction from the lower gaging station about 14 km; the average slope is about 2 m per km. Portions of the channel have been straightened. Drain tile are installed in most side slope draws and in some of the flood plain fields; no record of the amount and size of the tile is available.

Three geologic units compose the basis of the flow system; namely, the loess and eroded loess deposits, the tills and associated paleosols, and the alluvial sands (Kunkle, 1968). The loess cap and the loess derived alluvium, along with the sands provide the groundwater reservoir which feeds Four Mile Creek. There is some leakage from the loess to the till and thence to the limestone bedrock. Kunkle (1968) reported that flow from the creek to the alluvial sands occurs only during high discharges; the sands and tile provide most of the base flow.

Cross sections of the creek were measured at 16 locations during the study (Figure 4). There are data for 10 of the stations for the years 1967, 1977 and 1978; the six cross sections furthest upstream were not established until 1977. Core samples of the creek bed were taken for particle size analysis at ten locations associated with cross sections with a US BMH-53, piston-type bed material hand sampler. Some bed surface samples were obtained by use of a US BMH-60 bed material sampler.

WATERSHED SAMPLING

To compute total loads of sediment, nutrients, and herbicides, concentrations of each in runoff were required. The time when each sample of flow

was taken was obtained to associate the rate of flow with the concentration, since loads were calculated as a summation of average discharge (for a selected ΔT) multiplied by a given concentration (for the ΔT).

To determine characteristics of soil and sediment in place, soil profile nutrient and herbicide content, and soil moisture, soils were sampled at the surface and through the profile. Soils in the creek bed and banks were sampled to determine the portion of sand size particles.

Runoff, Base and Tile Flow Sampling

Samples of base flow and surface runoff were taken at the 8 gaging stations by several different methods.

At sites 1, 2 and 3 samples of surface runoff were taken by project personnel every 3 to 10 min during low stages (<15 cm), by dipping a bottle into the flow as it came through the flume. During runoff events when flows were >15 cm in depth, automatic pump samplers took samples of the runoff every 2 min. Additional single-stage samples were obtained from ports in the flume walls in case of automatic pump sampler malfunction.

Daily samples of base flow were taken at site 4 by the farm cooperator, by dipping a sample bottle into the flow at the control; at very low flows, sampling was performed every other day. Additional samples were taken during runoff events using a US D-74 depth-integrating sampler suspended from the bridge. The samples of surface runoff were taken at intervals of 2 to 4 h, depending on the magnitude of the event.

Samples of base flow at sites 5 and 6 were taken at approximately one week intervals by project personnel, by dipping a bottle into the flow at the control. Additional samples of surface runoff were taken by the farm cooperator during runoff events, by dipping a sample bottle into the flow, or by use of a hand-held US DH-48 depth-integrating sampler. Samples were taken at intervals of 1 to 4 h, depending on the magnitude of the event.

Samples of tile flow were taken at 10 tile outlets (5 locations), at intervals of 1 to 14 days (Figure 29). Project personnel took the tile flow samples by dipping a sample bottle into the flow. No measurements of tile flow were made, however the sampler noted whether the flow had increased or decreased since the last sampling date.

Sediment

Movement of sediment was evaluated at several points from the field to the stream. Flow measurement and sediment sampling for concentration permitted computation of the total suspended load. Sampling of soil in place permitted evaluation of the particle size distribution. Soil was sampled in place in the single cover watershed, in the deposits above the flumes, occasionally in the waterways, and in the stream banks and bed. Flow samples were taken during storm events at the three flumes, at two upland gaging stations (culverts) on ephemeral streams, and at three USGS gaging stations. Daily samples of flow were taken at the watershed outlet.

Figure 29. Monitored tile outlets 14 and 15.

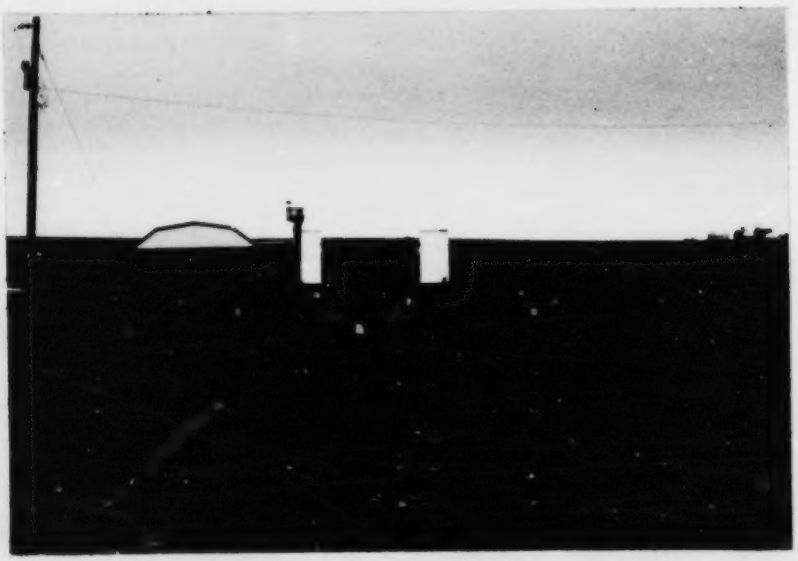


Figure 30. Arrangement of sediment sampling discs at sites 1 and 2.

Upland Sampling of Deposition --

Sediment deposition occurred above the flumes at sites 1 and 2 during runoff events. Ten plastic discs (15 cm diameter) were placed in a triangular arrangement above each flume to serve as collectors to evaluate depth of deposition and provide samples for particle size evaluation (Figures 30 and 31). Samples of sediment deposition in waterways and above culverts were taken occasionally. Samples of in-place surface soils were also taken to characterize the field soils above the flumes.

Channel Sampling - Bed --

Samples of the Four Mile Creek bed were taken in April 1977 and June 1978 to evaluate particle sizes of the sediment. Three samples were taken across the channel bottom at each of 10 locations corresponding to cross sections 2, 4, 6, 8, 10 and 11 to 15. Each sample was then divided into three layers (measured from the creek bed), 0-2.5 cm, 2.5-7.5 cm, and 7.5-20 cm. Particle size analyses of these samples were completed.

Samples of material at the creek bed surface were taken during two runoff events in 1977. The US BMH-60 sampler was lowered over the railing of bridges located between cross sections 4 and 5, and between 12 and 13, to obtain the bed surface material samples. Particle sizes of the samples were defined in the laboratory.

A few observations related to scour and fill on the creek bed were made by use of small brass chains fastened to rods embedded below the channel bottom. The chains were anchored 30 cm below the surface, brought to the surface, and then trailed downstream on the stream bed surface about 90 cm. Three chains spaced across the channel bottom were installed between cross sections 3 and 4, 6 and 7, and 12 and 13 in September 1977 when the creek was dry. The relative positions of the chains and stream bed surface were observed in July 1978.

Channel Cross Sections --

Cross sections of the main channel were taken for use in hydraulic calculations, and to measure the stream bank cross sectional area changes during the study (Figure 4). The cross sections were located at or near the ten locations established by Ruhe and Vreeken (1969), at five new locations upstream from the Lincoln gage (#5), and one new location upstream from the Gladbrook gage (#6). A steel post was installed on both banks at each location to establish the cross sections permanently, and 45-cm steel pipes were installed flush with the ground surface approximately 1 m behind each steel post to establish the elevation of the cross section and serve as an additional marker. The cross sections were measured by taking distance and elevation readings at break points in the section. The elevations of the steel pipes were established by making level runs to the nearest established elevation bench marks. Depth of "soft" sediment at the bottom of the stream bed was estimated by pushing the surveying rod downward through the sediment until strong resistance was encountered.

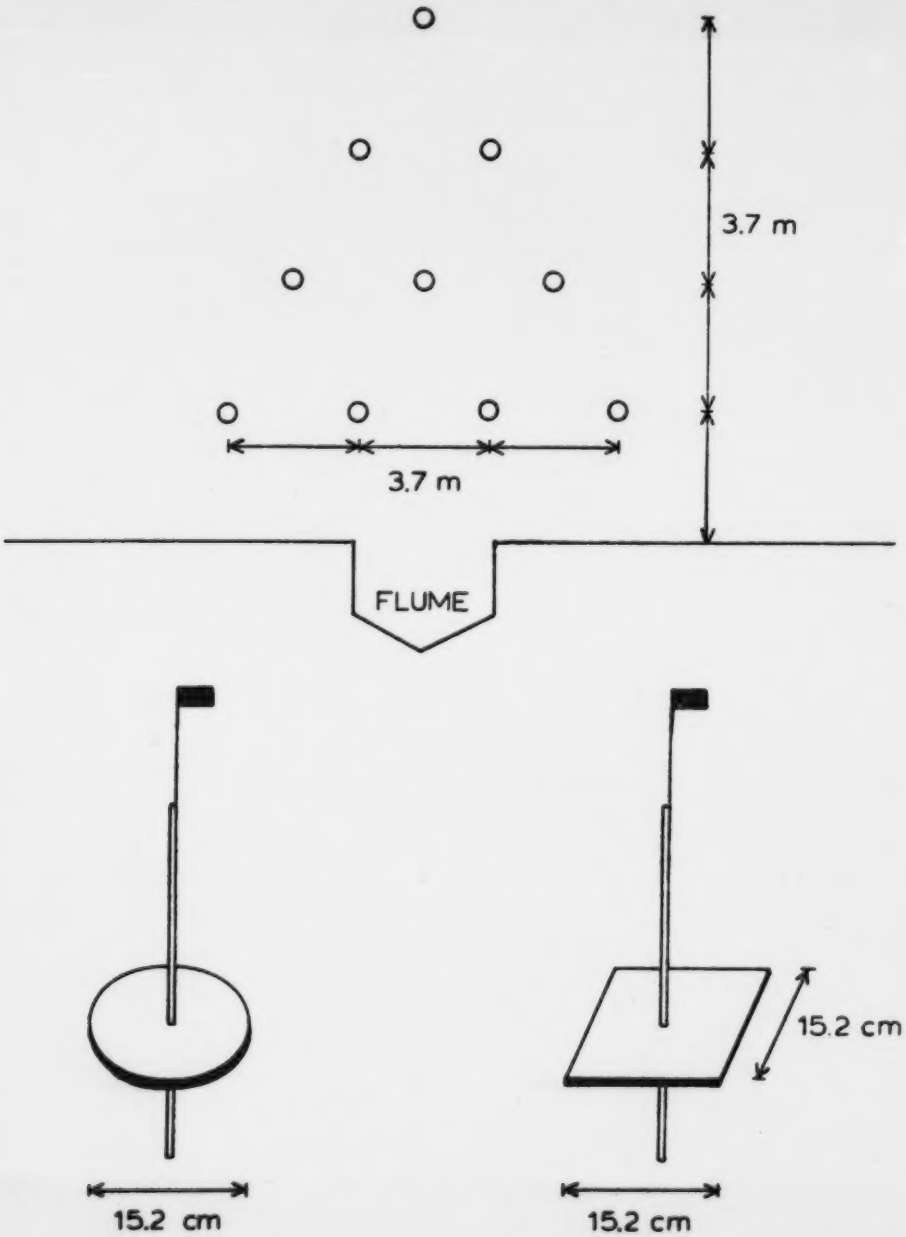


Figure 31. Arrangement and types of sediment deposition discs above sites 1 and 2.

An attempt was made to find the exact 1967 cross section locations, but only locations 1, 2, 4, 5 and 7 could be established. The other locations (3, 6, 8, 9 and 10) were placed in the vicinity of the old locations as best estimated from Ruhe and Vreeken's map.

Soil Sampling

Soil sampling was conducted periodically as sites 1, 2 and 3 (Figures 32 through 36) to measure pesticides, nutrients and moisture present in the soil on specific dates.

Soil sampling for pesticide analysis was conducted each year at sites 1 and 2, before and after pesticide application in the spring. A sampling was made one to several days before pesticide application to determine the background levels of the pesticides present in the soil. Soil sampling continued from the day of application, at intervals of 1 to 3 days, until the first significant rainfall, usually 2 to 3 weeks after application. Sampling then continued at 1 week intervals or after runoff events occurred, until approximately 8 weeks after application when the intervals were lengthened to 2 to 4 weeks. Pesticide sampling usually ended approximately 16 weeks after application.

Background sampling and samplings after the first significant rainfall were conducted with a 1.9 cm split-tube core sampler (Figure 37), and taken to 30 cm in 4 layers (0-1, 1-7.5, 7.5-15, and 15-30 cm). Sixteen samples were composited from each of three areas, corresponding to soil type: bottom lands, side slopes, upland. Samples taken immediately after application and those taken before first significant rainfall, were obtained using a volume sampler at eleven locations, with a duplicate sample from any one of the locations. The volume sampler was a 23.2 cm cylinder that was forced up to 10 cm into the soil. A slot on the side of the sampler allowed a plate to be inserted, entrapping the desired amount of surface soil (Figure 37). From the weight of the soil taken, the cross sectional area (423 cm^2) of the cylinder, and the pesticide concentrations, the amount of pesticide per unit area was calculated.

Soil sampling for nutrient and moisture analysis was conducted each year at sites 1, 2 and 3 throughout the growing season. Three times during each season - spring, midsummer and fall - soil core samples were taken down to 150 cm in 9 layers (0-1, 1-7.5, 7.5-15, 15-30, 30-45, 45-60, 60-90, 90-120, and 120-150 cm) (Figure 37). The samples were taken at 8 locations at sites 1 and 2, and at 5 locations at site 3 using a 5 or 7.5 cm diameter hand-operated bucket auger. Several of the pesticide soil core samples (approximately four through the growing season) taken to 30 cm were also analyzed for nutrients. Soil samples were analyzed for water-extractable NH_4-N, NO_3-N, PO_4-P and Cl; for K_2SO_4-extractable NH_4-N; for acid-fluoride-extractable available P (Bray-1); and for moisture content.

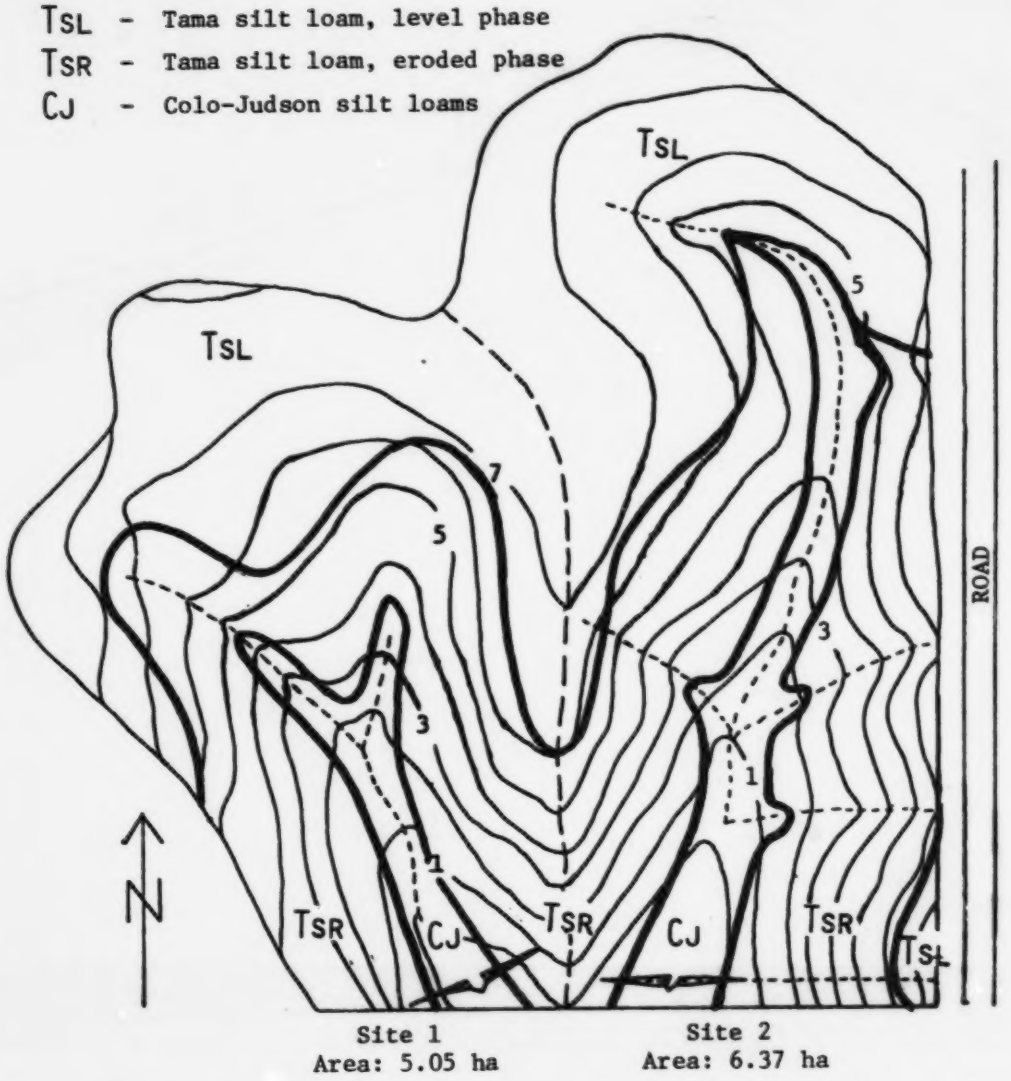
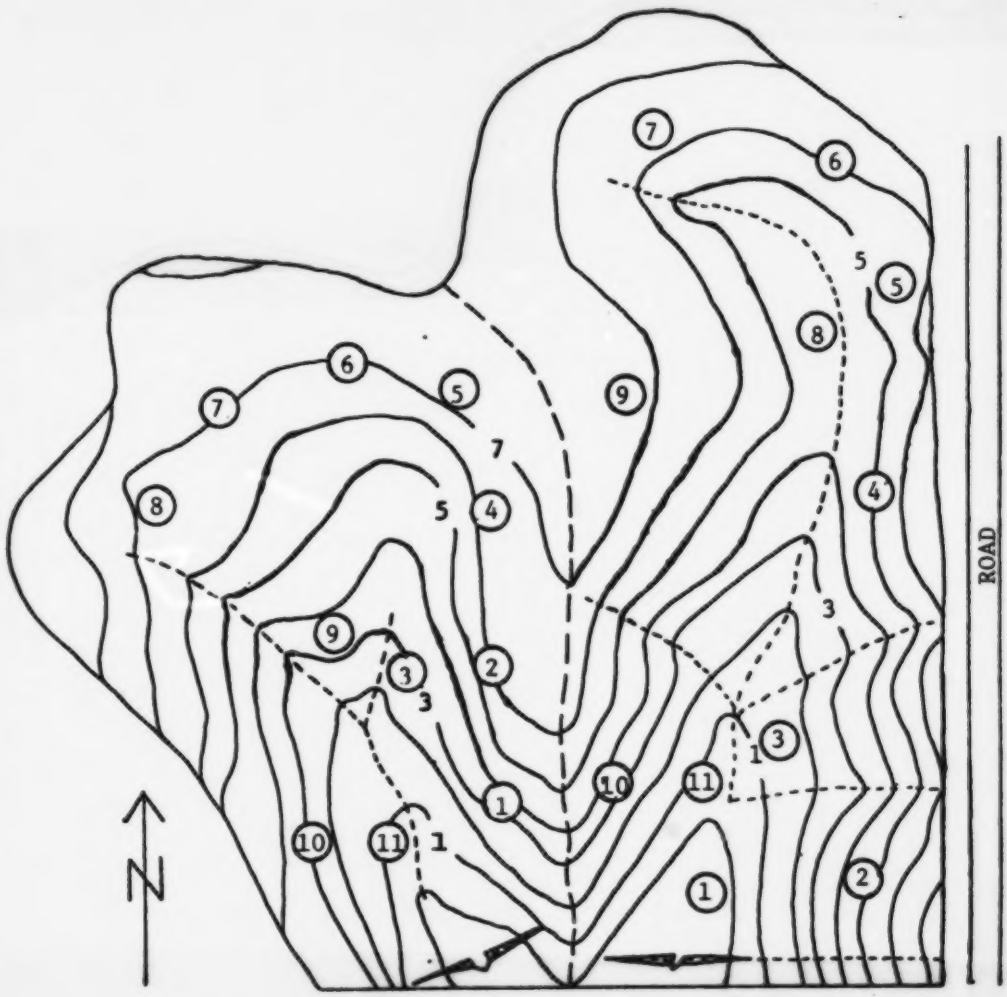


Figure 32. Soils and topography at sites 1 and 2



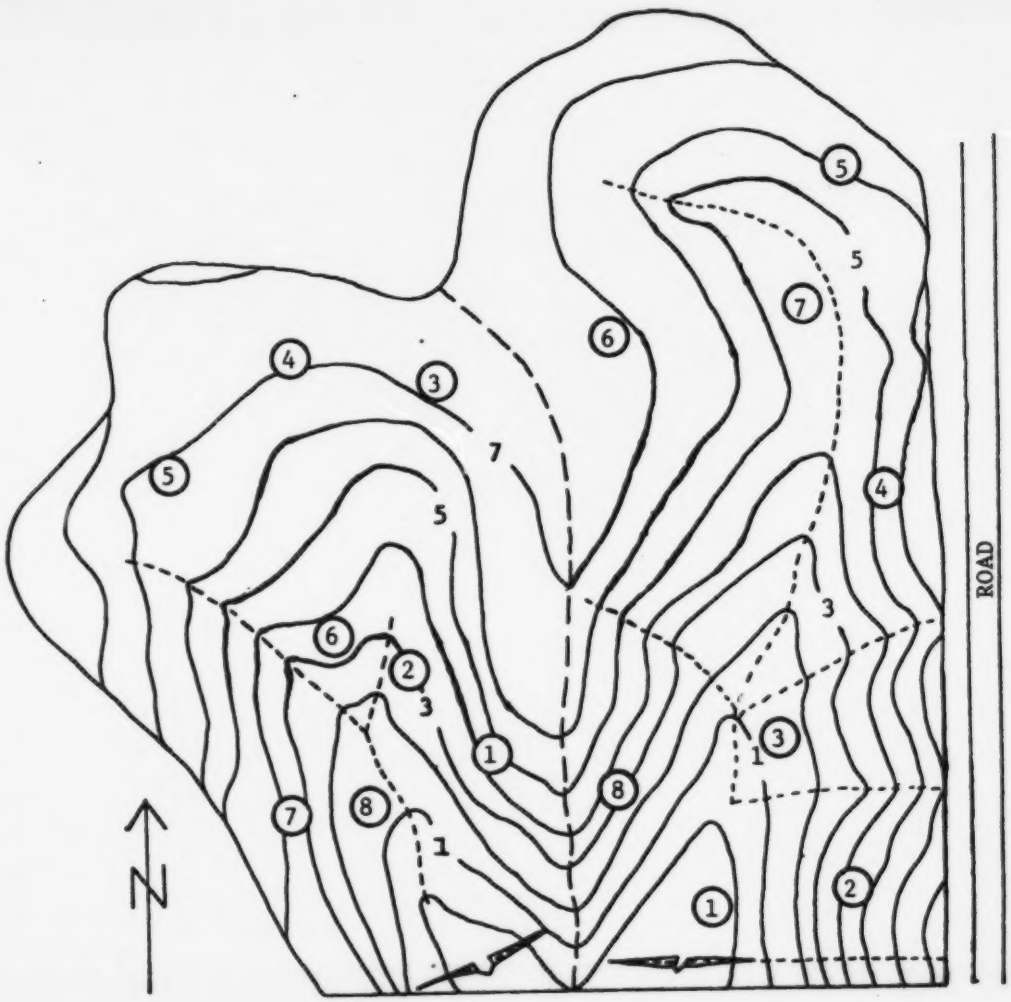
Site 1
Area: 5.05 ha

Site 2
Area: 6.37 ha

Scale: 100 m =

1.0 m contour intervals

Figure 33. Location of volume soil samples for pesticide analysis at sites 1 and 2.



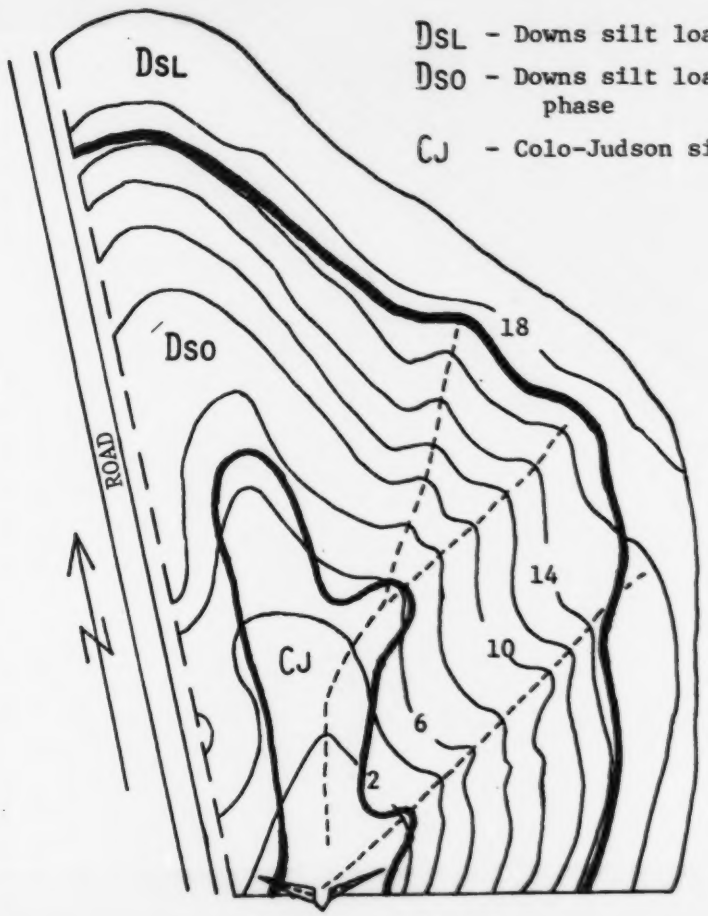
Site 1
Area: 5.05 ha

Site 2
Area: 6.37 ha

Scale: 100 m =

1.0 m contour intervals

Figure 34. Location of 150 cm soil core samples for nutrient analysis at sites 1 and 2.



DSL - Downs silt loam, level phase

DSO - Downs silt loam, eroded rolling phase

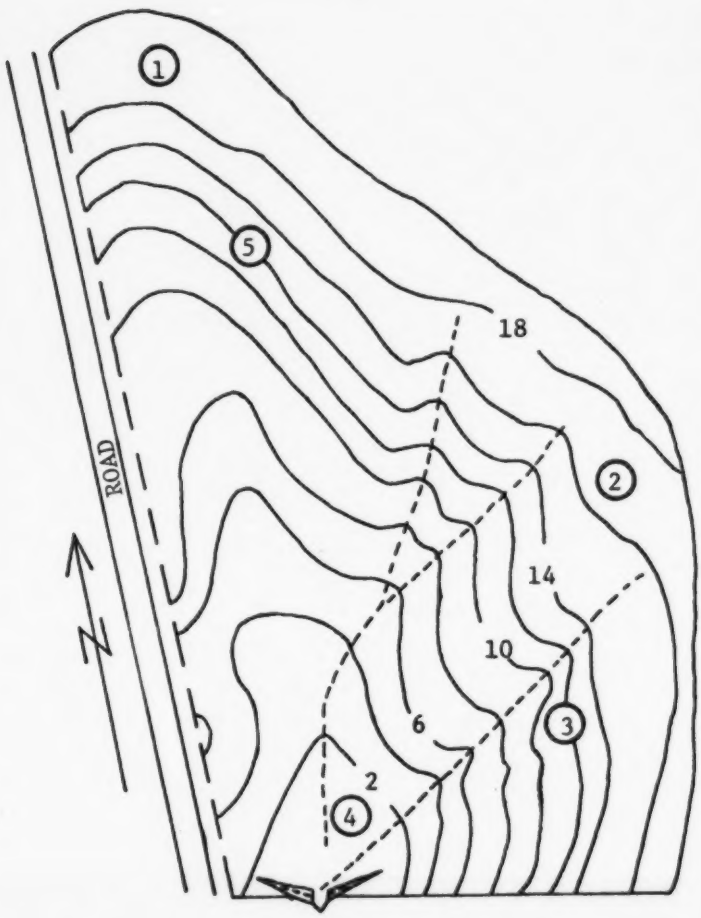
CJ - Colo-Judson silt loams

Site 3
Area: 5.93 ha

Scale: 100 m = ⊢——————⊣

2.0 m contour intervals

Figure 35. Soils and topography at site 3.



Site 3
Area 5.93 ha

Scale: 100 m =

2.0 m contour interval

Figure 36. Location of 150 cm soil core samples for nutrient analysis at site 3.

Figure 37. Soil samplers, from left to right: 7.5 cm diameter bucket auger, volume sampler, and 1.9 cm split-tube core sampler.

ANALYSIS METHODS

Sediment

Particle size distributions of sediments were determined by use of a particle size analyzer (silts and clays) and the visual accumulation tube (sands) (Colby and Christenson, 1956). Sediment plus dissolved solids concentrations were determined by drying a 30-ml portion of the sample. Dissolved solids concentrations were determined by drying a 30-ml portion of the sample that had been centrifuged for 10 min at 42,000 G. The particle size analyzer, an instrument based on use of x-ray attenuation to measure sediment concentration in a narrow horizontal band of a sedimentation cell, was used to determine the size distribution of particles in the 62 to 2 μ range (Figure 38). Samples were run in the native runoff water, concentrated to 6% soil suspension, if lower, and with no dispersant.

The non-suspended samples were wet sieved. The 2-4 mm and the 1.18-2 mm samples were oven-dried. The 62 μ - 1.18 mm samples were analyzed in the visual accumulation tube. Particles less than 62 μ were evaluated with the particle size analyzer.

Pesticides

The soil samples taken from sites 1 and 2, and water and sediment samples in runoff at sites 1, 2 and 4, were analyzed for alachlor, atrazine (runoff samples from site 4 only), cyanazine, metribuzin, propachlor and paraquat, by the gas-liquid chromatographic and colorimetric methods of Payne et al. (1974). These methods were modified for these herbicides by adjusting soil moisture to 15 to 20% to improve extraction efficiency of atrazine, and by using Tracor Hall model 700 electrolytic conductivity detectors in the nitrogen and halogen modes instead of Coulson systems. Recoveries of fortified samples at concentrations of 0.5 to 50.0 ppb (water) and 0.05 to 5.0 ppm (sediment or soil) were in the range of 90.0 to 98.7% (alachlor), 92.0 to 98.0% (atrazine), 93.0 to 100.0% (cyanazine), 87.6 to 102.6% (metribuzin), 91.0 to 99.0% (paraquat, in sediment or soil only), and 91.0 to 100.0% (propachlor). Because of the high extraction efficiencies, no correction for extraction efficiencies was made.

Nutrients

All water samples taken (surface runoff, sites 1, 2, 3, 7 and 8; stream flow, sites 4, 5 and 6; tile flow, sites 10 through 19; and precipitation) were analyzed for NH_4-N, NO_3-N, PO_4-P, Cl, and total dissolved solids. A Technicon Auto-Analyzer II system was used for NH_4-N, NO_3-N, and Cl (Figure 39). The alkaline phenol method used for NH_4-N (Technicon Industrial Method No. 98-70W) covered the range from 0 to 1 ppm with a 5 cm flow cell used to maximize sensitivity. The cadmium reduction method used for NO_3-N (Technicon Industrial Method No. 100-70W) covered the range from 0 to 2 ppm. The ferricyanide method used for Cl (Technicon Industrial Method No. 99-70W) covered the range 0 to 10 ppm. PO_4-P was analyzed manually by the single reagent ascorbic acid reduction method (Murphy and Riley, 1962), with a concentration range of 0 to 0.5 ppm (1 cm cells) or 0 to 0.2 ppm (4 cm cells). When these

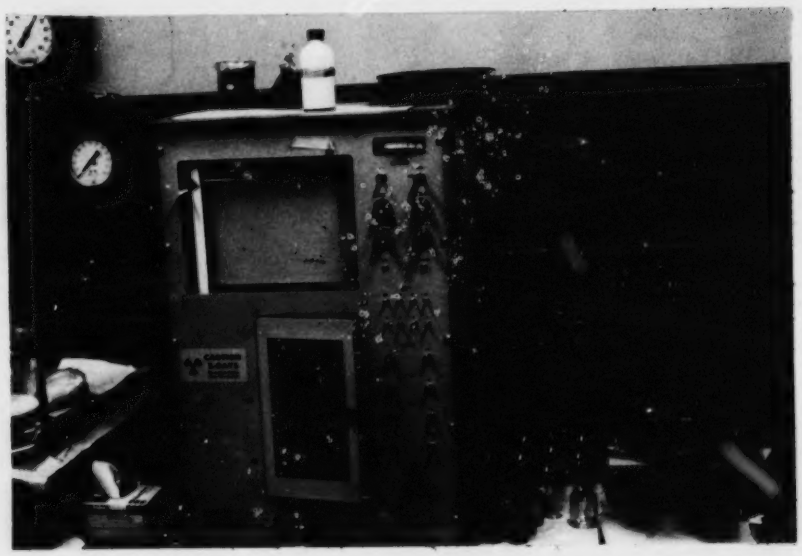


Figure 38. Sedigraph 5000 particle size analyzer.

Figure 39. Technicon Auto-Analyzer II system.

ranges were exceeded, known dilutions were made with demineralized water to reduce concentrations to the measurable range.

Selected water and sediment samples were analyzed for kjeldahl-N and total P, with conversion to and analysis of NH_4-N and PO_4-P, respectively, using sulfuric acid hydrolysis. Some of the sediment samples were further analyzed for K_2SO_4-extractable NH_4-N and acid-fluoride-extractable available P (Bray-1; ASA, 1965).

Soil samples were analyzed for water-extractable (5 parts demineralized water to 1 part soil) NH_4-N, NO_3-N, PO_4-P, and Cl; for K_2SO_4-extractable NH_4-N (5 parts 1 N K_2SO_4 solution to 1 part soil); and for acid-fluoride-extractable P (10 parts acid-fluoride solution to 1 part soil). The soil samples from the first sampling to 150 cm in 1976 were also analyzed for kjeldahl-N and total-P using sulfuric acid hydrolysis.

CROP INVENTORY, CANOPY DEVELOPMENT AND YIELDS

Crop information was collected from the farmers in the Four Mile Creek watershed in the summer or fall of each year of the study. Project personnel conducted personal interviews with each farmer, obtaining information concerning cropping patterns, fertilizer, herbicide and insecticide applications, tillage operations, conservation practices used and livestock raised. The data collected are presented in Appendix C. Aerial photographs, taken by project personnel early in the summer, were used to identify individual fields in the watershed.

Leaf canopy development of the corn and soybean crops at sites 1 and 2 was recorded by taking photographs of the crops each week throughout the growing season. The photographs were taken from the top of a 3.3 m step ladder, looking down onto the leaves of the crop. Two viewers then viewed the slides over the top of a grid, to determine the percentage of the area covered by leaf canopy.

Samples of the corn and soybean grain and residue were taken at sites 1 and 2 at harvest time each year, and total yields of grain and residue were estimated. Fourteen samples were taken from the corn field in 1976, and 6 samples in 1977 and 1978. Six samples were taken from the soybean field each year. The samples were analyzed for N and P to determine the amounts of nutrients utilized by the grain and residue of the crops each year.

No attempt was made to determine the yield of grass from the permanent pasture at site 3.

DATA REDUCTION, PROCESSING AND COMPUTATIONS

The general flow of data and analyses performed is shown in Figure 40. A description of the programs used to analyze the data follows.

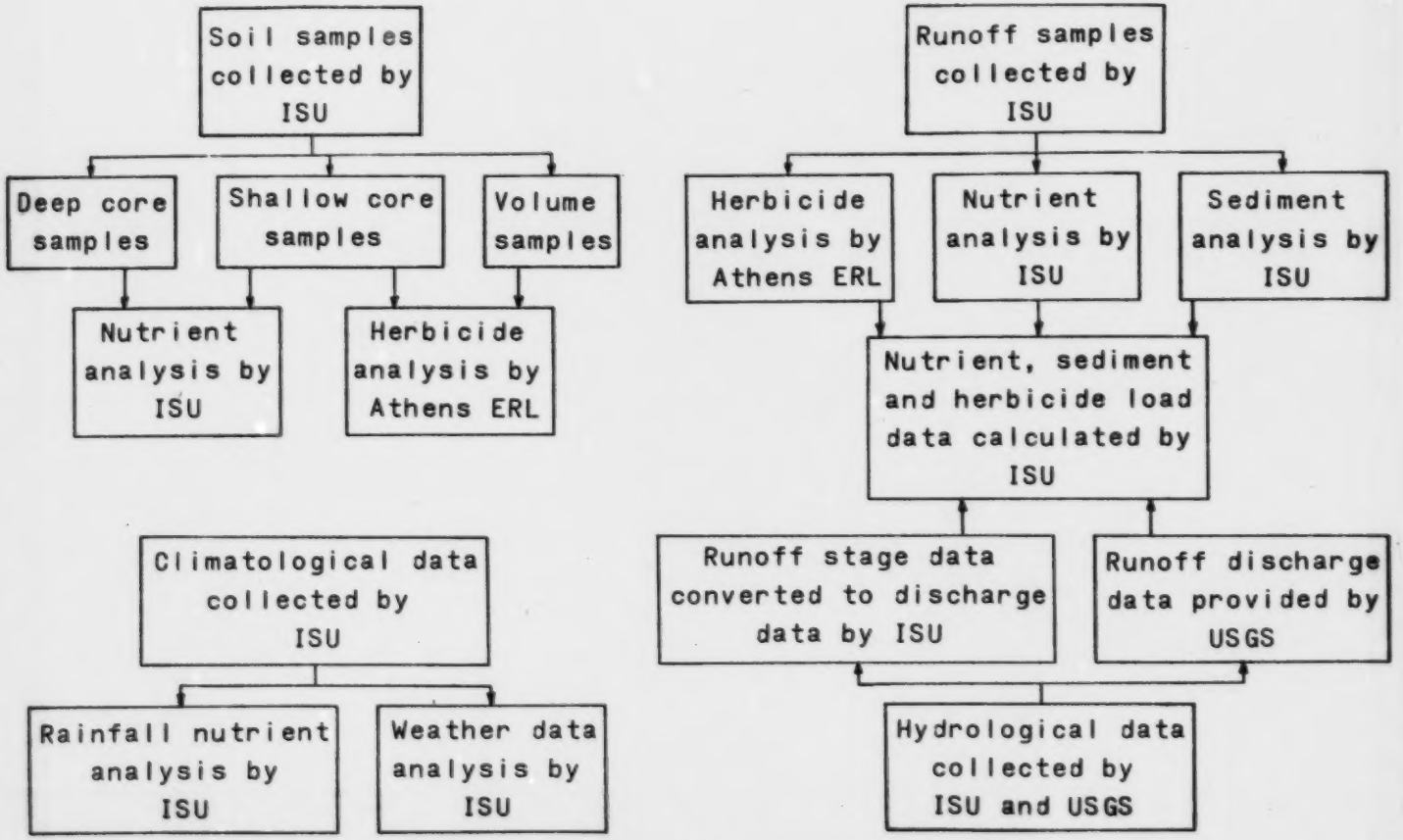


Figure 40. Flow diagram of sample and data handling.

Precipitation

Precipitation records were tabulated from recording rain gage charts for six locations. Precipitation values and times were determined at inflection points on the continuous chart traces (break-point method). The actual rainfall collected in the recording buckets was measured at the end of each storm, and the chart readings were proportioned to this amount using the following equation:

$$\text{Precipitation} = (R - R_i)\left(\frac{R_a}{(R_f - R_i)}\right) \quad [1]$$

where R was the chart reading (mm) at a given time, R_a was the actual total rainfall (mm), R_f was the final chart reading (mm), and R_i was the initial chart reading (mm). The resultant precipitation was given in millimeters.

The precipitation intensity was calculated by dividing the precipitation by the elapsed time for each time increment. No intensities were calculated for snow data, when the recording gages malfunctioned, or when precipitation totalled less than 5.1 mm. Accumulated precipitation was tabulated on a storm, daily, and yearly basis.

Runoff

Stage recorders were used to measure runoff at 5 locations, and USGS records were obtained at three additional locations. Stage height and time data were taken from the runoff records using the break-point method. The discharge and time data were then determined using the appropriate rating curves.

The flow versus time curve was then integrated using the trapezoidal rule to compute the approximate value for the area under the curve; this area was equal to the total volume of runoff.

The trapezoidal rule used each corresponding flow value and time value, and computed the area from the following equation:

$$A = \tfrac{1}{2}(Q_1 + Q_2)(T_2 - T_1) \quad [2]$$

where T_1 was the time (s) at break-point 1, T_2 was the time (s) at break-point 2, Q_1 was the discharge (m^3/s) at time T_1, Q_2 was the discharge (m^3/s) between times T_1 and T_2.

This area under the curve was equal to the flow volume which passed the stage recorder between time T_1 and T_2. Each incremental flow volume was then added to the flow volume already accumulated until the event ended.

Loads

Masses of sediment, nutrients, and herbicides in runoff were computed using sample concentrations and times with the flow data. For computational

purposes the first sample concentration of an event was applied from the start of the event until the midpoint between the first and second sample. The final sample concentration was applied from the midpoint between the penultimate and last samples until the end of the runoff event. The remaining sample concentrations were applied from midpoint to midpoint of the times between samples.

The measured concentrations used in calculating loads of nutrients and herbicides in solution were based on water alone. Sediment concentrations were based on the total mass of sediment and water. The total flow measured included suspended sediment; therefore, the volume of flow occupied by sediment was corrected for, with the density of the sediment particles taken as 2.65 g/cm^3. The loads per unit area (kg/ha) were calculated as follows for n samples, for the nutrients and herbicides:

$$\text{Load/area} = \sum_{i=1}^{n} \left[\frac{Cn_i Q_i T_i}{A} \frac{2.65\left(1 - \frac{Cs_i}{10^6}\right)}{(2.65 \times 10^6 - 1.65\, Cs_i)} (60{,}000)\right] \qquad [3]$$

and for the sediment:

$$\text{Load/area} = \sum_{i=1}^{n} \left[\frac{Cs_i Q_i T_i}{A} \frac{2.65}{(2.65 \times 10^6 - 1.65\, Cs_i)} (60{,}000)\right] \qquad [4]$$

where T_i was the i^{th} time increment (min) for which the sample applied, and for this time increment, Cn_i was the concentration (ppm) of the given herbicide or nutrient, Cs_i was the sediment concentration (ppm), Q_i was the average flow rate (m^3/s), A was the watershed area (ha), and the 60,000 was a conversion factor to obtain the correct units of kg/ha. For chemical loads associated with sediment, it should be noted that the incremental loads were obtained by multiplying sediment loads by the chemical concentrations in sediment.

Loads at sites 1, 2, 3, 7 and 8 were calculated using the runoff data taken from stage recorders. At these sites the flow was not continuous, therefore only storm loads were calculated.

Loads at sites 4, 5 and 6 were calculated using the flow data supplied by the USGS. Daily loads at these sites during constant or nearly constant flow were calculated using the average daily flow data. Storm loads were calculated from flow data with 15-min time increments (sites 4 and 5) or 5-min time increments (site 6). Total loads for sites 4, 5 and 6 were the sum of the storm loads and the daily loads.

Soil Samples

Volume (surface samples, 0 to about 5 cm; deep enough to include all of the surface application of herbicides) and core samples were taken to determine the herbicide and nutrient concentrations in the soil. Soil core samples

were taken down to 30 cm for shallow samples, and to 150 cm for deep samples. The total mass of each herbicide and nutrient was also determined on an areal basis.

Total masses of nutrients in the deep cores were determined by using the bulk density of each soil zone of the core sample. The equation used to calculate the total mass per unit area was:

$$\text{mass/area} = \sum_{i=1}^{n} [(0.1)(L_i)(\text{conc}_i)(BD_i)] \qquad [5]$$

where n was the number of soil depth zones in the core sample profile, L_i was the length (cm) of the i^{th} zone, conc_i was the nutrient concentration (ppm on a dry weight of soil basis) in the zone, BD_i was the bulk density (g/cm^3) of the zone, and 0.1 was a conversion factor to obtain the correct units of kg/ha.

The bulk densities (Tama-Colo soil) used for the various soil depth zones were:

Zone, cm	Length, cm	BD, g/cm^3
0-1	1.0	1.00 (1.30 for site 3)
1-7.5	6.5	1.30
7.5-15	7.5	1.27
15-30	15.0	1.23
30-45	15.0	1.24
45-60	15.0	1.26
60-90	30.0	1.30
90-120	30.0	1.34
120-150	30.0	1.37

Volume samples were taken before the herbicide moved down through the soil profile and therefore no depth zones were used. The total mass of herbicides in the soil was determined using the mass and cross sectional area of the sample. The herbicide samples were analyzed by Athens ERL. The herbicide concentrations (ppm) on a dry weight of soil basis were calculated from:

$$\text{conc} = \left(\frac{HC}{20}\right)\left(1+\frac{MC}{100}\right) \qquad [6]$$

where HC/20 was the herbicide concentration (µg per 20 g wet sample), and MC was the moisture content (percent on a dry weight of soil basis). The herbicide mass per unit area was calculated using:

$$\text{mass/area} = \left(\frac{MW}{A}\right)\left(\frac{HC}{20}\right)(0.1) \qquad [7]$$

where MW was the mass (g) of the wet soil sample, HC/20 was the herbicide concentration (µg per 20 g wet sample), A was the sample area (423 cm^2), and 0.1 was a conversion factor to obtain the correct units of kg/ha. For each date the mean and standard deviation were also calculated for the herbicide

mass per unit area.

Shallow core samples were taken to determine movement of the herbicides and nutrient availability within the soil profile. The mass per unit area for chemicals in the shallow soil profile was calculated from:

$$\text{mass/area} = \sum_{i=1}^{n} \left[\frac{(HC_i)(MW_i)(0.1)}{(A)(N)\left(1+\frac{MC_i}{100}\right)} \right] \qquad [8]$$

where n was the number of soil zones in the core sample profile, HC_i was the herbicide (or nutrient) concentration (ppm) in the i^{th} zone, MW_i was the mass (g) of the wet soil sample from the i^{th} zone, MC_i was the moisture content (%) of the i^{th} zone, A was the cross sectional area of the sample (2.85 cm^2), N was the number of samples taken in each soil type (N = 16), and 0.1 was a conversion factor to obtain the correct units of kg/ha. It should be noted that the term $(MW_i)/(1+(MC_i/100))$ gives the mass of the dry soil sample from the i^{th} zone. For the layers 7.5 to 15 cm and 15 to 30 cm no moisture contents were recorded, and for these two layers, dry soil sample masses of 444.6 g and 889.2 g, respectively, were assumed. For each date the mean and standard deviation of the three soil types were also calculated for the herbicide mass per unit area.

SECTION 7

RESULTS AND DISCUSSION

WEATHER

Four Mile Creek Basin

The precipitation in and near the watershed during the three years of the study varied significantly from normal patterns. Precipitation amounts were above average in the initial 6 months (through June 1976), below average in the next 12 month period (461 mm versus an annual average 823 mm), above average in the next 6 months, and near normal for the final 12 month period (1978). The precipitation pattern had a definite effect on the number and magnitude of runoff events and the amount of snowmelt that occurred in the watershed. The few runoff events that did occur in 1976 and 1977 corresponded to periods of higher precipitation. Several runoff events occurred in 1978 when the precipitation pattern was near normal.

Variation in intensities and amounts of precipitation among stations a relatively short distance apart was evident in the data. On an annual basis total precipitation measured at the six gaging sites ranged from 511 to 587 mm in 1976, from 807 to 930 mm in 1977, and from 847 to 899 mm in 1978. More important, however, may be the variation between gages during storms. Two storms of interest occurred on 4/19/77 and 9/17/77. On 4/19/77, 20 mm of rain fell at sites 1 and 2 producing 4.6 mm of runoff at site 1, while only 10 mm fell 2.4 km south of the site, and no precipitation at all was recorded 6.6 km to the west. On 9/17/77, 36 mm of rain fell producing <1 mm of runoff at site 1 and none at site 2, while 6.9 km to the east 70 mm of rain fell, causing 8.4 mm of runoff from the pasture site, which usually had far less runoff than cropped areas.

Regional Data

Precipitation data collected at four weather bureau stations in the vicinity of Four Mile Creek were similar to those collected within the watershed. Normal annual precipitation in the area is about 823 mm. Table 2 shows the annual precipitation for the three study years at four local stations. Rainfall was below normal in 1976, and above normal in 1977 and 1978, being extremely deficient late in 1976 until July 1977. Four Mile Creek stopped flowing at the Traer station during the period; people living in the region had not observed this before. The July 1976 through June 1977 precipitation totalled 380 mm at Marshalltown, and 460 mm at Grundy Center, about half of normal.

TABLE 2. TOTAL PRECIPITATION AT WEATHER STATIONS NEAR FOUR MILE CREEK WATERSHED

Location	Precipitation mm		
	1976	1977	1978
Eldora	748	849	864
Grundy Center	726	834	908
Marshalltown	612	874	856
Traer	606	901	886

Freezing winter soil temperatures and snow pack influence spring runoff. The frost leaves the soil profile in March and April. Table 3 shows the first date when the temperature was above freezing at the 20.3, 50.8 and 101.6 cm depths at the Estherville station for 1976 through 1978. The snow is gone for some time before the frost leaves at the 100 cm depth. While the rapid snow pack melt usually occurs during two or three warm days in February and March, the peak snowmelt discharges on the small and large watersheds occur within a day of each other. Table 4 indicates that the peak flow on the Iowa River at Marshalltown lags the peak flow on Four Mile Creek by about a day. Snowmelt discharges in the spring of 1977 were very low, as would be expected from the precipitation records.

TABLE 3. FIRST DAY SOIL TEMPERATURE ABOVE FREEZING (ESTHERVILLE STATION)

Depth cm	Date		
	1976	1977	1978
20.3	March 30	March 25	March 30
50.8	After March 31	March 28	April 17
101.6	After March 31	March 29	April 29

The consecutive number of days without freezing temperatures is listed in Table 5 for four weather stations near the study watershed for the years of the study. While varying considerably, the number of days averages 161; the usual freeze free period for the area is between 150 and 155 days.

TABLE 4. DATE OF PEAK SNOWMELT DISCHARGE

Station	1976	1977*	1978
Richland Creek (Tama)	12 March	12 March	21 March
Timber Creek (Marshalltown)	12 March	11 March	21 March
Iowa River (Marshalltown)	13 March	12 March	21 March
Four Mile Creek	12 March	12 March	20 March

*Very low flows.

TABLE 5. CONSECUTIVE DAYS WITHOUT FREEZING TEMPERATURE

	1976	1977	1978
Eldora	155	189	159
Grundy Center	156	163	155
Marshalltown	177	169	155
Waterloo	139	156	155

CROPS GROWN IN THE STUDY AREA

Crop Inventory

The crop inventory of Four Mile Creek watershed showed six major crops grown in the area: corn, soybeans, oats, hay, pasture and grass (government set-aside). Land planted to row-crops, corn and soybeans, accounted for about 75% of the area in the watershed during the three years of the study. Crop inventory data obtained from a previous study in 1970 showed a substantially lower amount of corn and soybeans grown in the watershed (Appendix A). The current inventory data also showed a somewhat higher percentage of row-crops in the upper end (site 7) of the watershed, as compared to the lower end (the area between sites 4 and 5). The larger amount of row-crop was due to the reduced slope and increased fertility of the land in the upper end of the watershed. Pasture also comprised a higher percentage of the land in the lower end of the watershed, due to steeper slopes and low areas along the creek. The crop inventory is presented in Appendix A; summaries of the crop inventory data for each subwatershed in the Four Mile Creek watershed are also included.

According to the crop inventory, fertilizer usage in the watershed increased between 1970 and 1978. The rates of fertilizer P and K did not change

significantly, but the amount of N fertilizer applied per ha slowly increased. With the increased rates of N fertilizer and the increased amount of corn grown, the total amount of fertilizer N applied in 1978 was almost twice the amount applied in 1970.

Herbicide usage on corn and soybeans also increased in the watershed between 1970 and 1978. The percentage of corn and soybeans receiving herbicides remained relatively constant during the three years of the study: 98% of the corn and 95% of the soybeans. Insecticide applied to corn increased from 54% of the corn in 1970 to 80% in 1978; no insecticide was used on soybeans grown in the watershed.

Crop Leaf Canopy Development

The corn crops at sites 1 and 2 were generally planted during the last week in April or the first week in May. After the corn plants emerged, approximately 10 days after planting, the canopy continued to develop, as recorded by the photographs taken (Figures 41 through 44). A full canopy was developed approximately 10 weeks after emergence. The soybean crops were planted approximately 1 to 2 weeks after the corn crops, and the soybean canopy also reached its maximum at approximately 10 weeks after emergence. The crop leaf canopy observations are presented in Appendix C.

Crop Yields

The crop yield measurements taken at sites 1 and 2 are presented in Appendix C. The yields of corn and soybeans were within the range of yields normally expected from the soil types present and the level of management used. Moisture stress in 1976 and 1977 caused a small yield reduction in the soybeans and corn in the respective years. The highest yields were observed in 1978 due to very favorable weather conditions for crop growth. The yields of corn and soybeans at sites 1 and 2 were fairly typical of those obtained on a large portion of the Four Mile Creek watershed, varying according to soil type and management used.

HYDROLOGY

Runoff records for the three years are presented in Appendix D for the three small single cover watersheds (sites 1, 2 and 3), beginning with the snowmelt in 1976, and for the smaller mixed cover watersheds (sites 7 and 8), beginning mid-year 1976. The larger mixed cover watersheds (sites 4, 5 and 6) were gaged by the USGS; measurements at sites 5 and 6 began mid-year 1976.

Eight storms took place over the Four Mile Creek watershed from 1976 through 1978 which resulted in surface runoff, and for which particle size data could be taken. Storm runoff (m^3/s), cumulative precipitation (mm), and sediment concentration (ppm) for the samples taken during storm events, are presented as a function of time for each individual site when particle size data were taken. An example storm event on 6/20/78 is shown for sites 1, 2, 8, 5 and 4 (Figures 45 through 49).

Figure 41. Crop development photograph, soybeans, site 1.

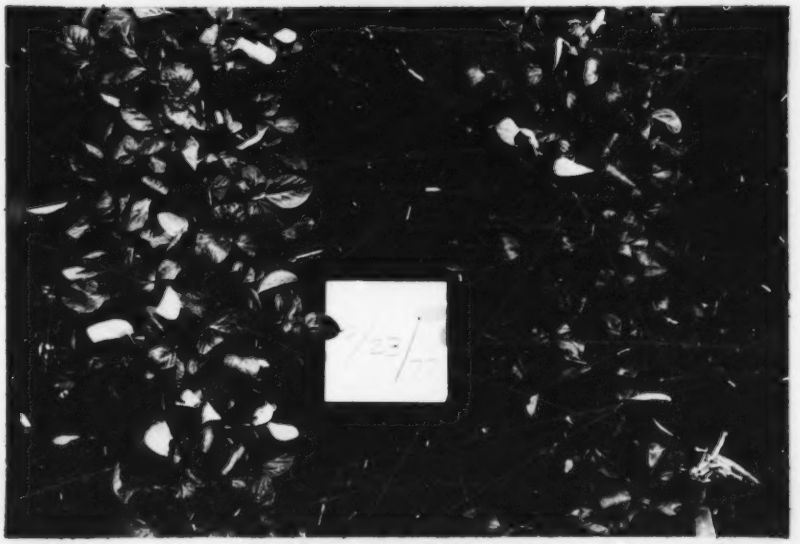


Figure 42. Leaf canopy development photograph, soybeans, site 1.

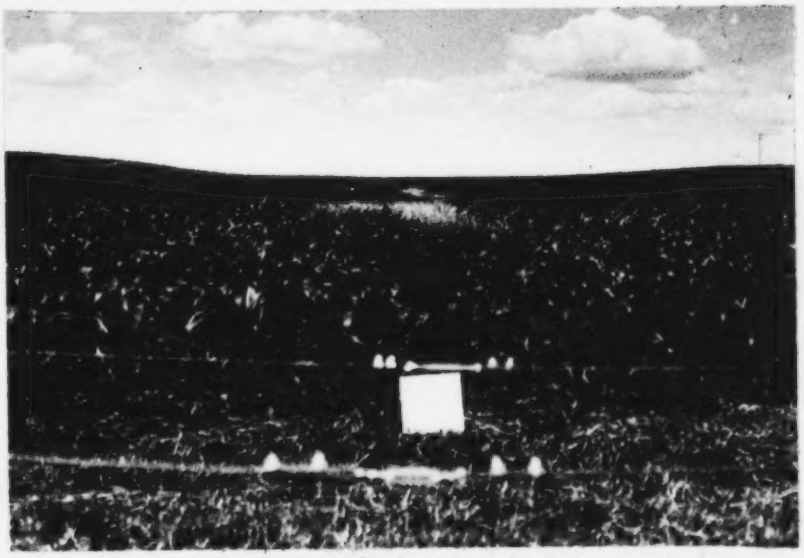


Figure 43. Crop development photograph, corn, site 2.

Figure 44. Leaf canopy development photograph, corn, site 2.

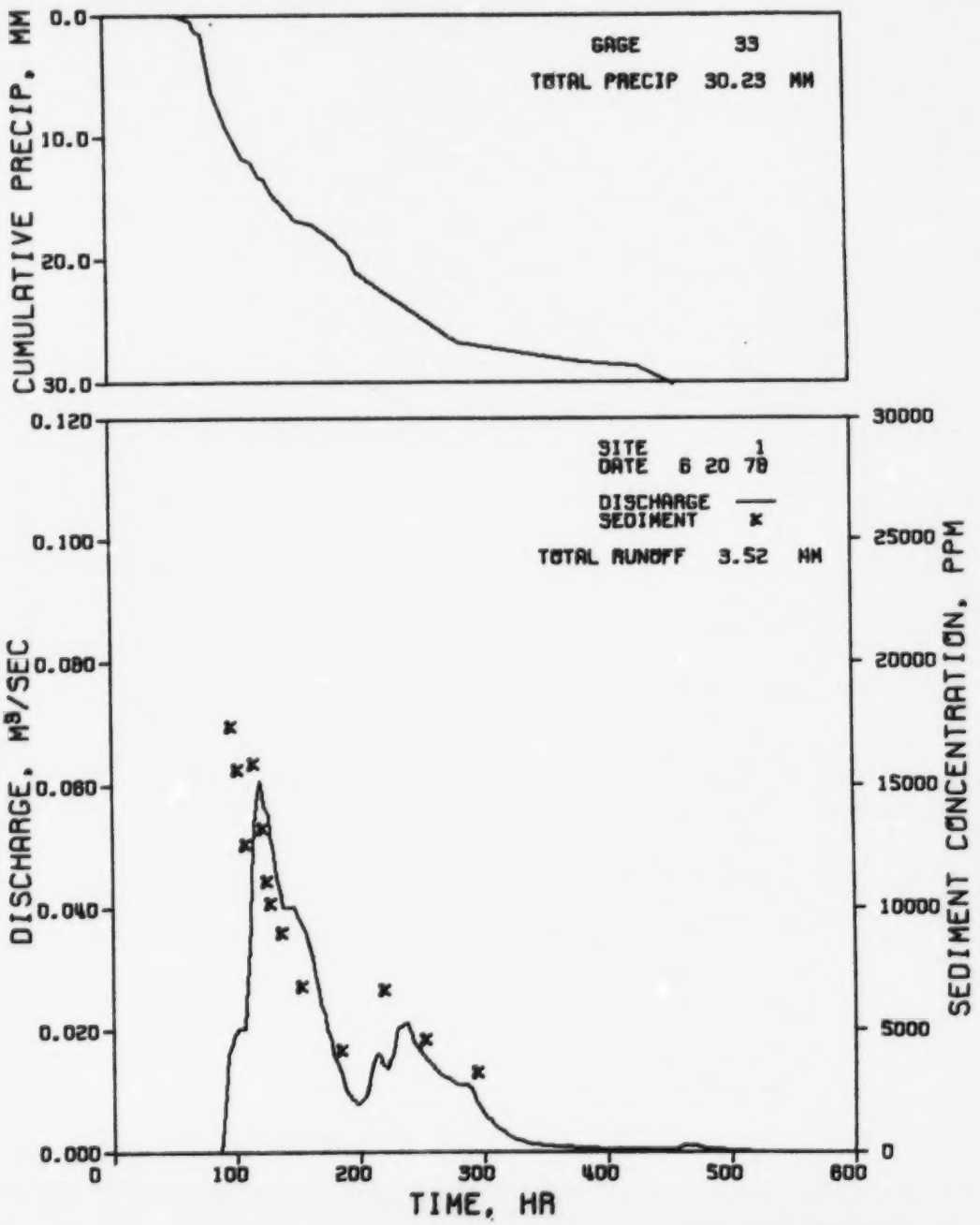


Figure 45. Storm runoff, cumulative precipitation, and sediment concentration for site 1, 6/20/78.

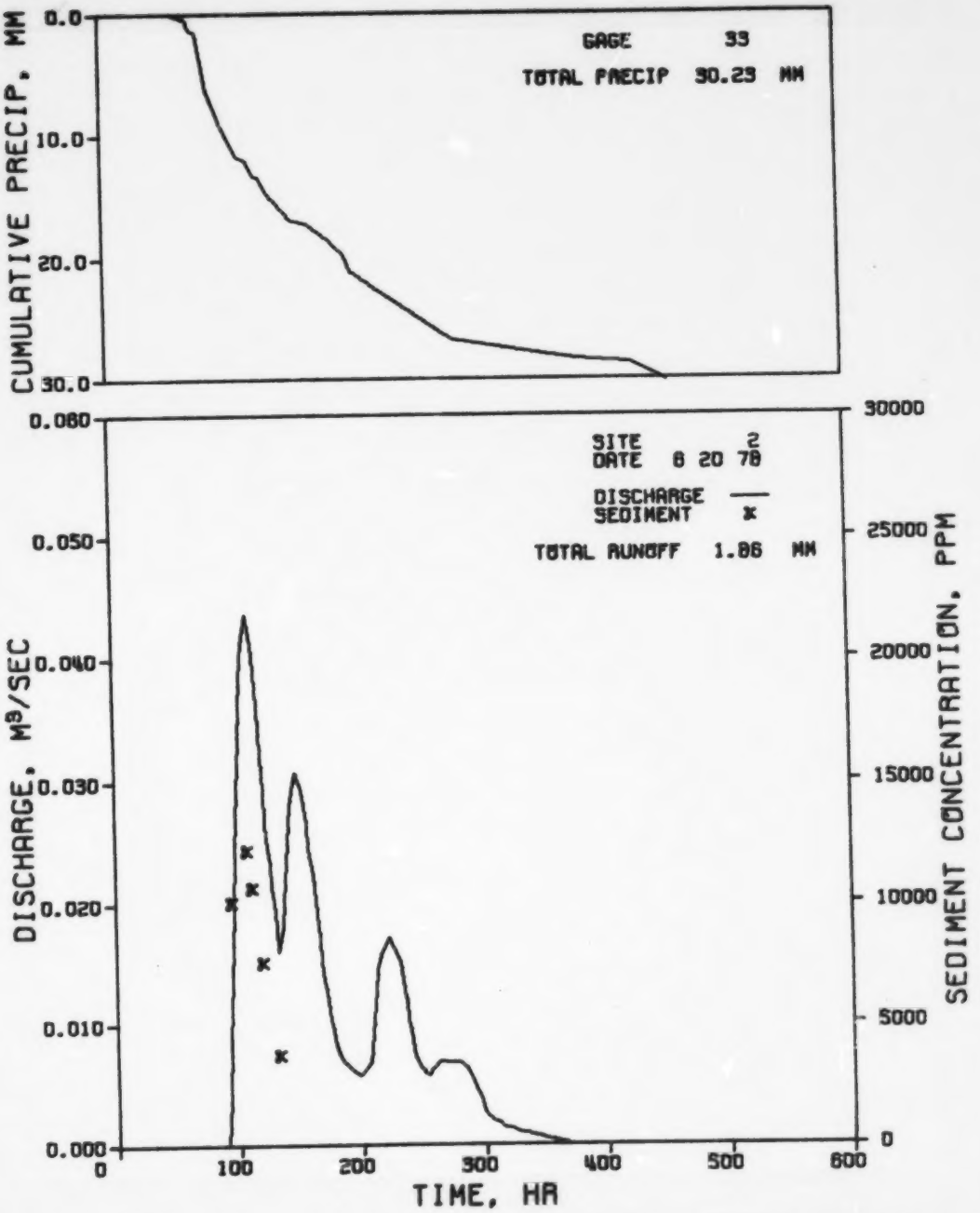


Figure 46. Storm runoff, cumulative precipitation, and sediment concentration for site 2, 6/20/78.

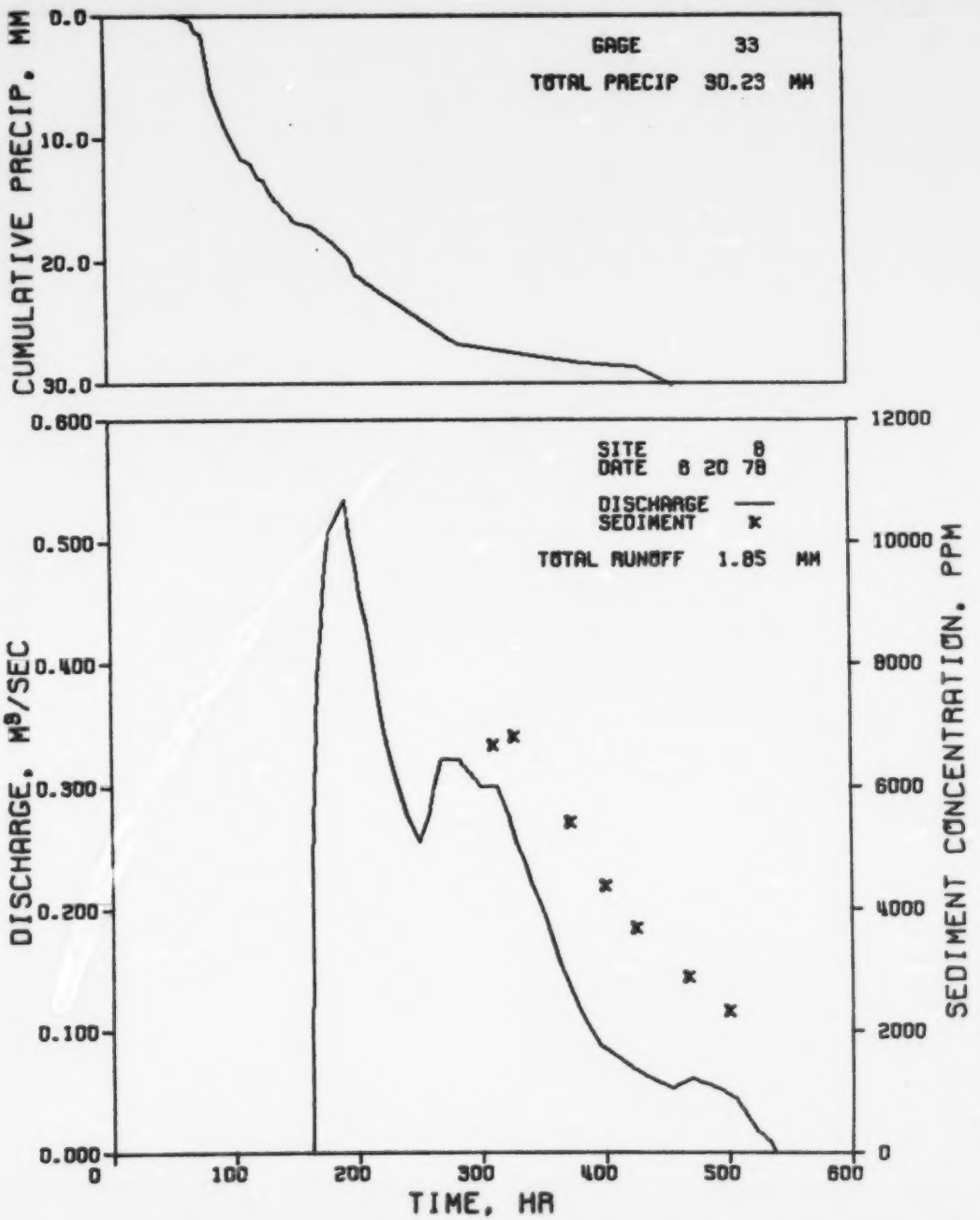


Figure 47. Storm runoff, cumulative precipitation, and sediment concentration for site 8, 6/20/78.

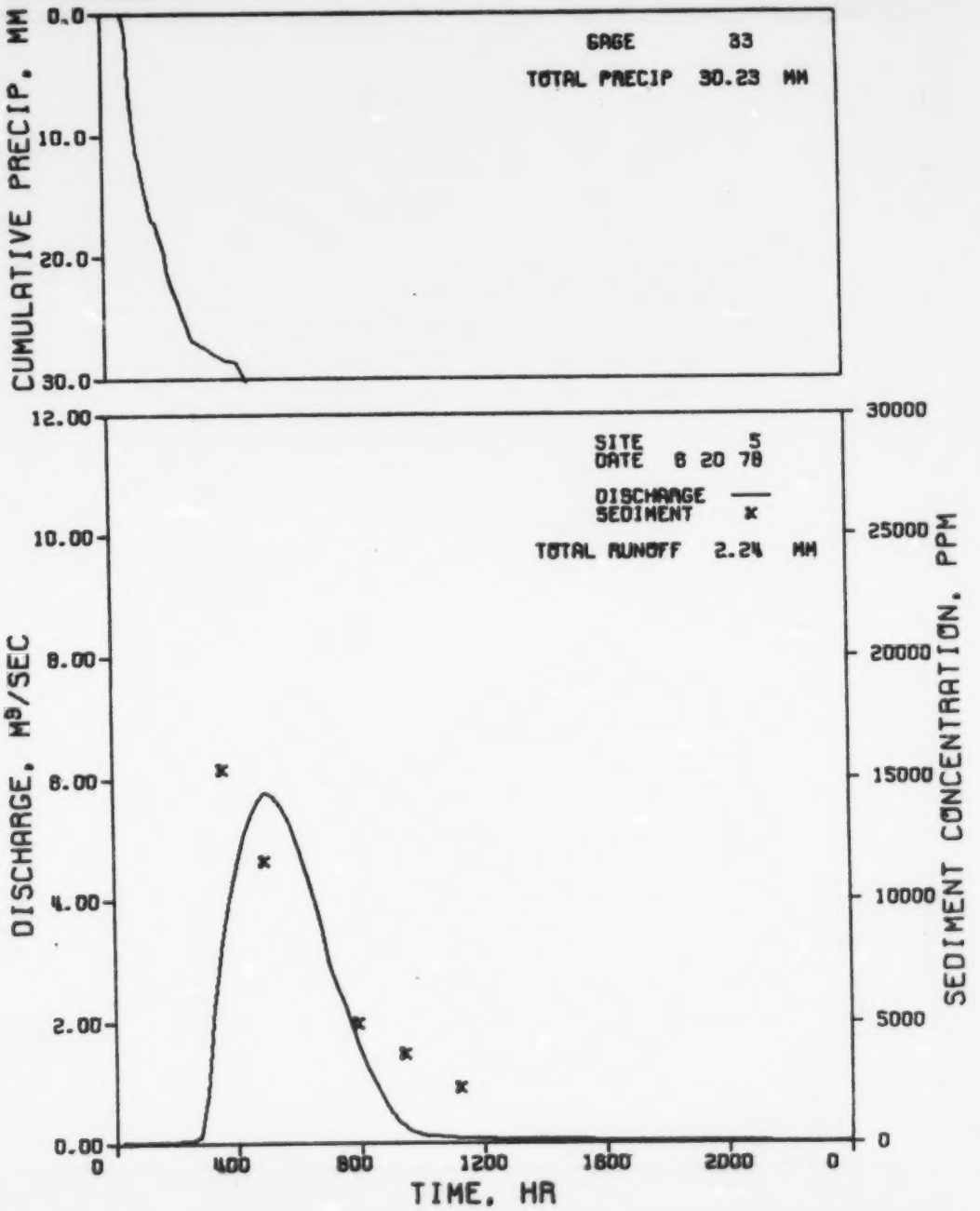


Figure 48. Storm runoff, cumulative precipitation, and sediment concentration for site 5, 6/20/78.

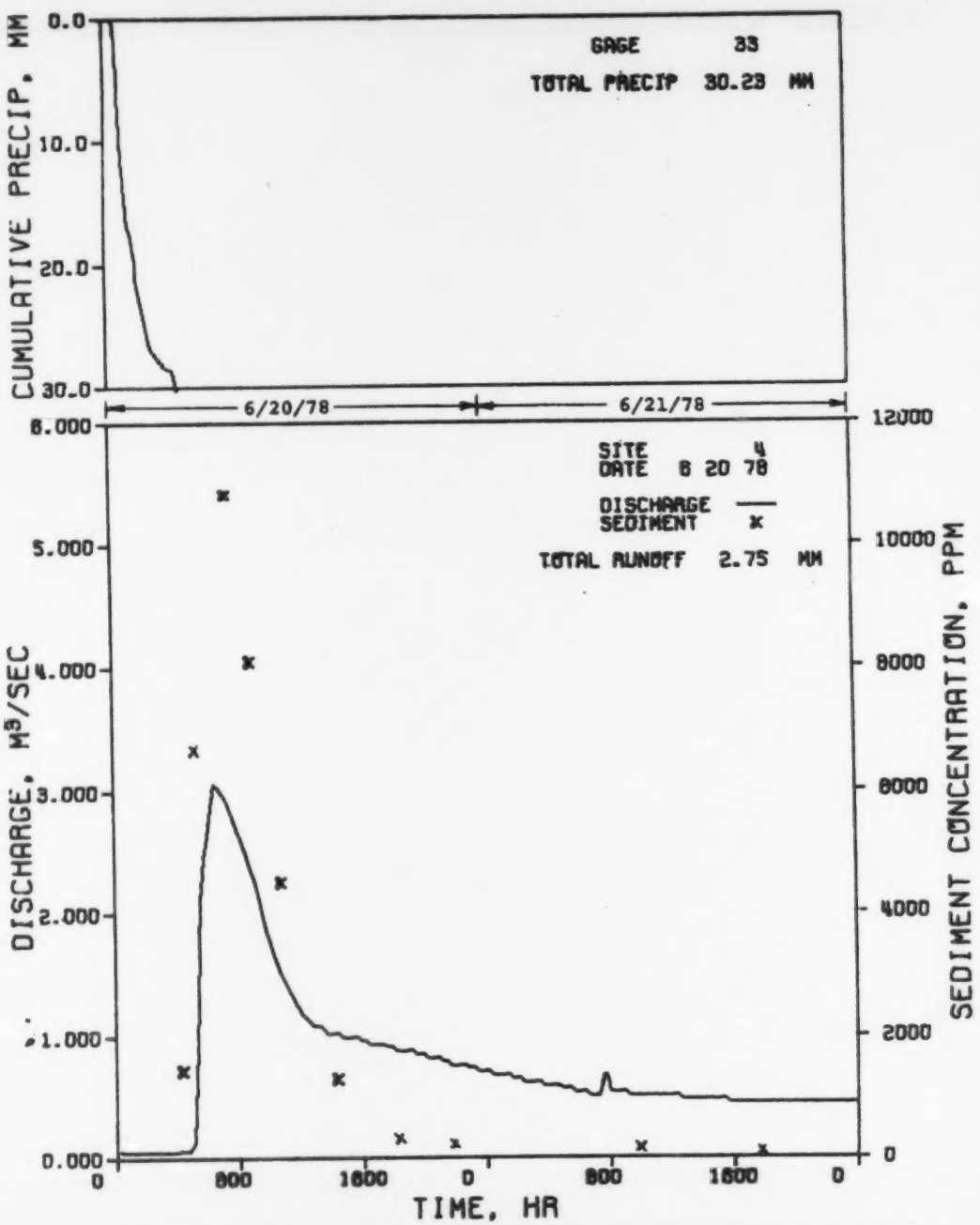


Figure 49. Storm runoff, cumulative precipitation, and sediment concentration for site 4, 6/20/78.

Note that sites 1 and 2 were in a soybean-corn rotation, site 1 being planted to soybeans and site 2 to corn in 1976. The field in corn was plowed the following spring in preparation for planting soybeans; the field with soybean residue was disked prior to planting corn. The timing and degree of tillage had a significant effect on runoff amounts for storms occurring after spring tillage. For example, 28 mm of precipitation on 4/23/76 resulted in 0.6 mm runoff from the recently plowed watershed (soybeans) and 6.0 mm from the disked watershed (corn); similarly for rainfall of 29 mm on 5/29/76, respective runoff amounts were 3.9 and 11.4 mm. However, by 6/13/76 the disked watershed (in corn) had been cultivated and the relative amounts of runoff reversed (Table 6). As also shown in Table 6, the runoff amounts for the April storms in 1977 (20.1 mm rain) and 1978 (64.8 mm rain) were greatest for the disked watershed (site 1 in 1977; site 2 in 1978).

Data indicating rainfall distribution and crop canopy development over the Four Mile Creek watershed are presented in Appendices B and C. Total annual runoff by site and year may be found in Table 7. As shown, snowmelt was a significant portion of total surface runoff in some years. In 1976 and 1978, snowmelt from sites 1 and 2 ranged from 54 to 83% of the total runoff; in 1977 there was no snowmelt runoff Figures 50 through 52 show sites 1 and 2 through the seasons; Figures 53 through 61 show examples of snow cover and snowmelt runoff.

SEDIMENTATION

Single and Mixed Cover Watersheds

Crop cover as well as tillage practices and rainfall intensity can significantly affect surface runoff and erosion. Flow-weighted storm concentrations in runoff from sites 1 and 2 are presented in Table 8. These data represent storm sediment yield (kg/ha) divided by storm runoff (decimeters) for the row-crop watersheds. The soybean site (spring plowed cornstalks) always had higher sediment concentrations than the corn site (disked soybean residue), indicating more soil was lost in surface runoff given equivalent runoff amounts. Erosion from two intense rains is evident in Figures 62 through 64. Percent growing crop cover increased to 35% for beans and 67% for corn by the last runoff event of the 1978 season (6/20/78). After 6/7/78 the corn crop cover was roughly twice that of bean cover. Table 8 also shows that flow-weighted storm concentrations decreased for the 1978 season as crop cover increased.

For a given site and runoff event, sediment concentrations and flows were directly related; i.e., as the rate of runoff increased, sediment concentration increased. This observation was most in evidence when the hydrograph rose or fell sharply, such as 6/20/78 site 1 (Figure 45). In some cases the peak concentration slightly preceded peak flow rate. Storm events which started at a high rainfall intensity produced runoff with high sediment concentration, e.g., 5/27/78 sites 1 and 2 (Table 8); peak rainfall intensity was 189 mm/h.

There was also a relationship between sediment concentration and particle size distribution for a given site and runoff event; as sediment

TABLE 6. STORM RUNOFF AND SEDIMENT YIELD DATA

Date		Site 1	Site 2	Site 3	Site 8	Site 7	Site 6*	Site 5*	Site 4*
5/29/76	Runoff[S] mm	3.89	11.40	1.00	--†	--	--	--	2.41
	Sediment kg/ha	1825	3989	18	--	--	--	--	75
6/13/76	Runoff mm	8.23	1.18	0.19	8.88	6.70	--	--	4.20
	Sediment kg/ha	762	51	--	--	--	--	--	226
4/19/77	Runoff mm	4.65	0.00	0.00	0.59	0.00	0.03	0.09	0.42
	Sediment kg/ha	3873	0	0	282	0	<1	2	2
8/15/77	Runoff mm	4.83	0.80	0.005	3.39	0.97	3.84	5.77	0.71
	Sediment kg/ha	776	173	<1	209	24	192	34	4
4/17/78	Runoff mm	1.30	5.25	0.93	5.12	6.02	14.82	12.57	9.68
	Sediment kg/ha	77	101	2	69	154	671	591	344
5/27/78	Runoff mm	1.19	10.23	0.00	2.74	0.00	--	--	--
	Sediment kg/ha	325	1840	0	481	0	--	--	--
5/31/78	Runoff mm	0.22	0.73	0.00	0.53	0.00	--	--	--
	Sediment kg/ha	43	142	0	--	0	--	--	--
6/15/78	Runoff mm	0.88	2.41	0.00	0.30	0.00	1.07	1.23	0.87
	Sediment kg/ha	88	160	0	18	0	14	83	28
6/20/78	Runoff mm	3.52	1.86	0.00	1.85	0.00	3.00	2.67	1.93
	Sediment kg/ha	291	97	0	115	0	151	271	94

*Flow equals surface runoff plus some subsurface flow, peak runoff rates are available in appendix D.

†Indicates no data available.

TABLE 7. ANNUAL RUNOFF AND SEDIMENT YIELD DATA

	Site	1976 Runoff mm	1976 Sediment kg/ha	1977 Runoff mm	1977 Sediment kg/ha	1978 Runoff mm	1978 Sediment kg/ha
Snowmelt	1	45.77	156	0.00	0	38.40	25
Rain-runoff		12.87	2623	11.88	5558	8.00	842
Total		58.64	2779	11.88	5558	46.40	867
Snowmelt	2	30.78	655	0.00	0	25.64	72
Rain-runoff		20.55	4732	0.88	180	21.65	2416
Total		51.33	5387	0.88	180	47.29	2488
Snowmelt	3	10.44	17	0.00	0	4.49	2
Rain-runoff		2.64	23	8.65	27	1.57	3
Total		13.07	40	8.65	27	6.05	5
Snowmelt	8	--*	--	0.00	0	27.59	130
Rain-runoff		8.88	--	9.23	736	14.43	722
Total		8.88	--	9.23	736	42.02	852
Snowmelt	7	--	--	0.00	0	22.96	29
Rain-runoff		6.70	--	2.62	26	9.12	158
Total		6.70	--	2.62	26	32.08	188
Snowmelt	6†	--	--	0.00	0	24.19	68
Rain-runoff		13.11	--	69.91	421	229.53	1920
Total		13.11	--	69.91	421	253.53	1988
Snowmelt	5†	--	--	0.00	0	31.25	132
Rain-runoff		13.48	--	52.17	95	172.21	1482§
Total		13.48	--	52.17	95	203.47	1614§
Snowmelt	4†	16.25	461	0.00	0	29.25	149§
Rain-runoff		106.42	1102	43.62	74	168.11	855§
Total		122.67	1564	43.62	74	197.36	1004

*Indicates no data available.

†Both snowmelt and rainfall-runoff flows contain some subsurface flow for creek sites 4, 5 and 6.

§Sediment yield does not include amounts for storms of 5/27/78 and 5/31/78 due to a lack of samples.

Figure 50. ISU gaging stations, sites 1 and 2, spring (5/12/77).

Figure 51. ISU gaging stations, sites 1 and 2, midsummer (8/18/78).

Figure 52. Snow accumulation at sites 1 and 2, winter 1978.

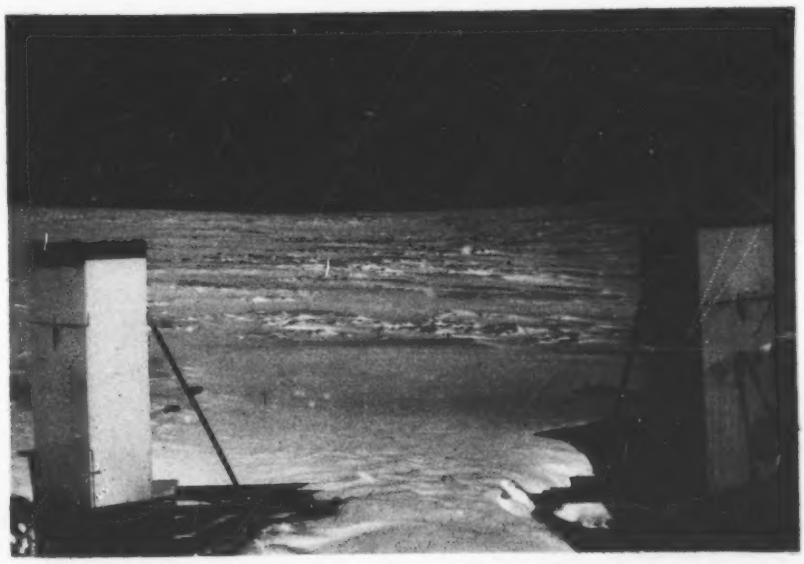


Figure 53. Snow accumulation at site 2, winter 1978.

Figure 54. Snow accumulation on road ½ km west of site 8, winter 1978.

Figure 55. Snow accumulation site 3, winter 1978.

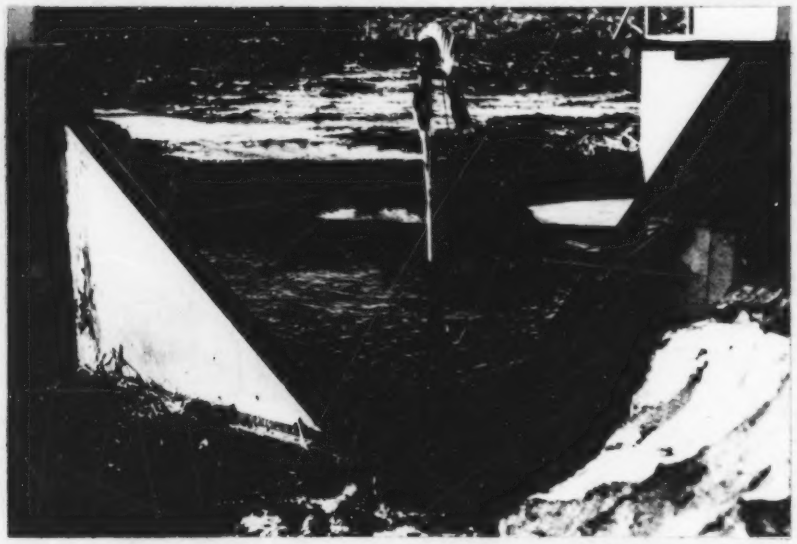


Figure 56. Snowmelt runoff occurring at site 1, 3/22/78.

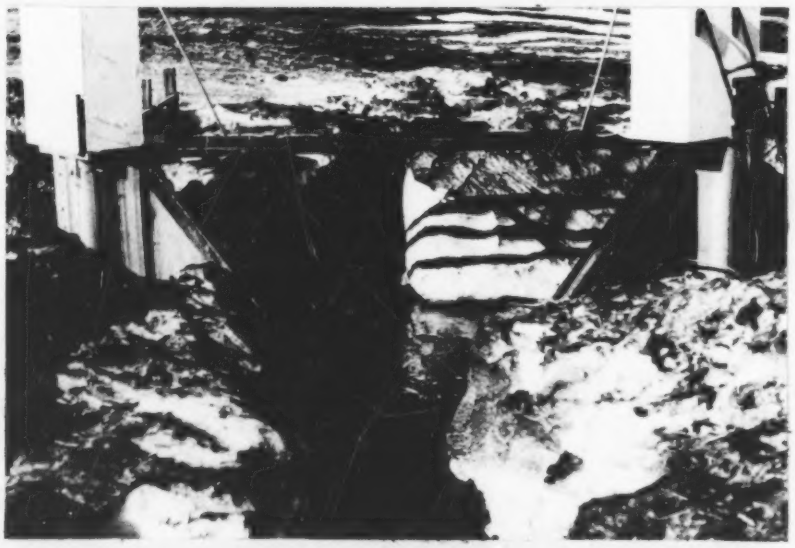


Figure 57. Snowmelt runoff occurring at site 2, 3/22/78.

Figure 58. Snowmelt runoff occurring at site 3, 3/19/78.

Figure 59. Snow and ice clogged stream channel above site 5 at the beginning of snowmelt runoff, 3/19/78.

Figure 60. Snowmelt runoff accumulating above snow clogged culvert at site 7, 3/19/78.

Figure 61. Snowmelt runoff being gaged at site 8, 3/19/79.

Figure 62. Sediment deposition above site 2, 5/29/76, caused by ponding of runoff water due to dikes and flume.

Figure 63. Evidence of erosion at site 1, following a storm on 5/29/76.

Figure 64. Evidence of rill erosion at site 1, following a storm on 6/20/78.

TABLE 8. FLOW-WEIGHTED SEDIMENT CONCENTRATIONS

Date	Sediment concentration ppm*	
	Soybeans	Corn
5/29/76	46920	34990
6/13/76	9260	4320
4/19/77	--	83290
8/15/77	21620	16070
4/17/78	5923	1930
5/27/78	27310	17990
5/31/78	19540	19450
6/15/78	10000	6640
6/20/78	8270	5220

*Equal to mg sediment per liter of flow.

concentration and flow decreased, average particle size decreased. Particle size distributions for runoff samples illustrating this relationship are shown for 6/20/78 site 1, 6/20/78 site 2, and 4/19/77 site 1 (Figures 65 through 67); see Appendix E for all size data.

Figure 67 specifically shows the particle size distribution as a function of time and sediment concentration as flow decreased after peak discharge for 4/19/77 site 1. At 1713 hr on that date less than 20% of the transported material was smaller than 2 μm, the concentration was 100,957 ppm, and the flow rate 0.4938 m^3/s. As flow receded to 0.0008 m^3/s at 1754 hr, the 2 μm and smaller clay size had increased to 70% of the load, and concentration had decreased to 12,578 ppm.

Load-weighted particle size distributions are shown for 6/20/78 sites 1 (in place), 1, 8, 5 and 4 (Figure 68), and 6/20/78 sites 2 (in place), 2, 8, 5 and 4 (Figure 69). These distributions are a result of multiplying the incremental sediment load each sample represented times the sample size distribution, summing these values and dividing by the total sediment load for the storm of interest for each individual site. This distribution is equivalent in theory to the particle size distribution of the total sediment load for the storm of interest. Also shown is particle size distribution for in-place soil from sites 1 or 2. The type of watershed should be kept in mind when viewing these graphs; also, keep in mind that these are not data for dispersed sediment samples. It is evident that the in-place soil had the least fine material. The average size distribution of suspended sediment in runoff decreased at sites 1 and 2 and decreased further at site 8. Much of the coarse material deposited in the large grassed waterway, in fence lines, and above a culvert between sites 1 and 2 and site 8. The average particle size then increased for sites 4 and 5, probably due to the contribution of nearby field or bank erosion. Flow samples at all of the sampling locations contained sediment in the silt and clay range.

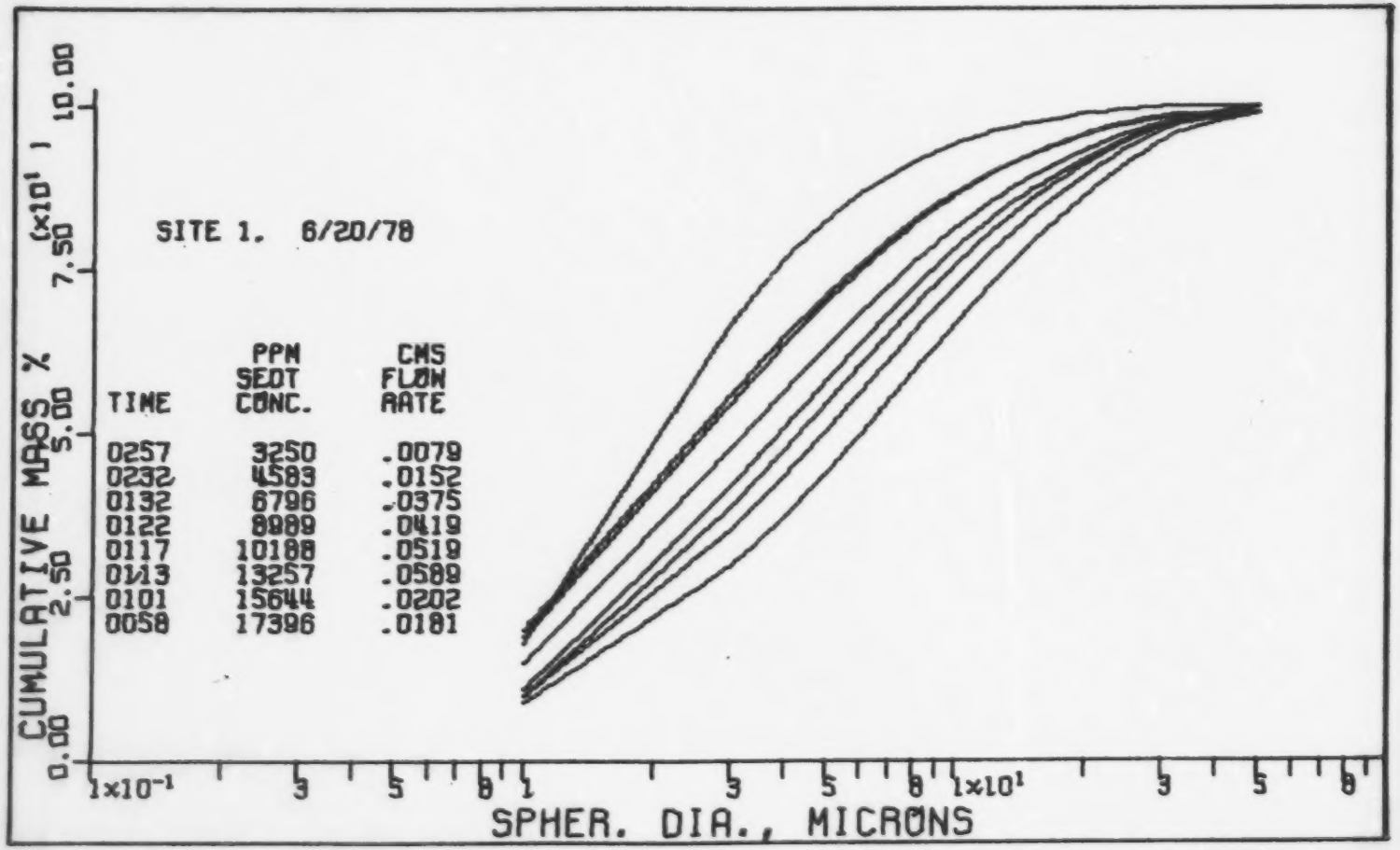


Figure 65. Particle size distributions for site 1, 6/20/78.

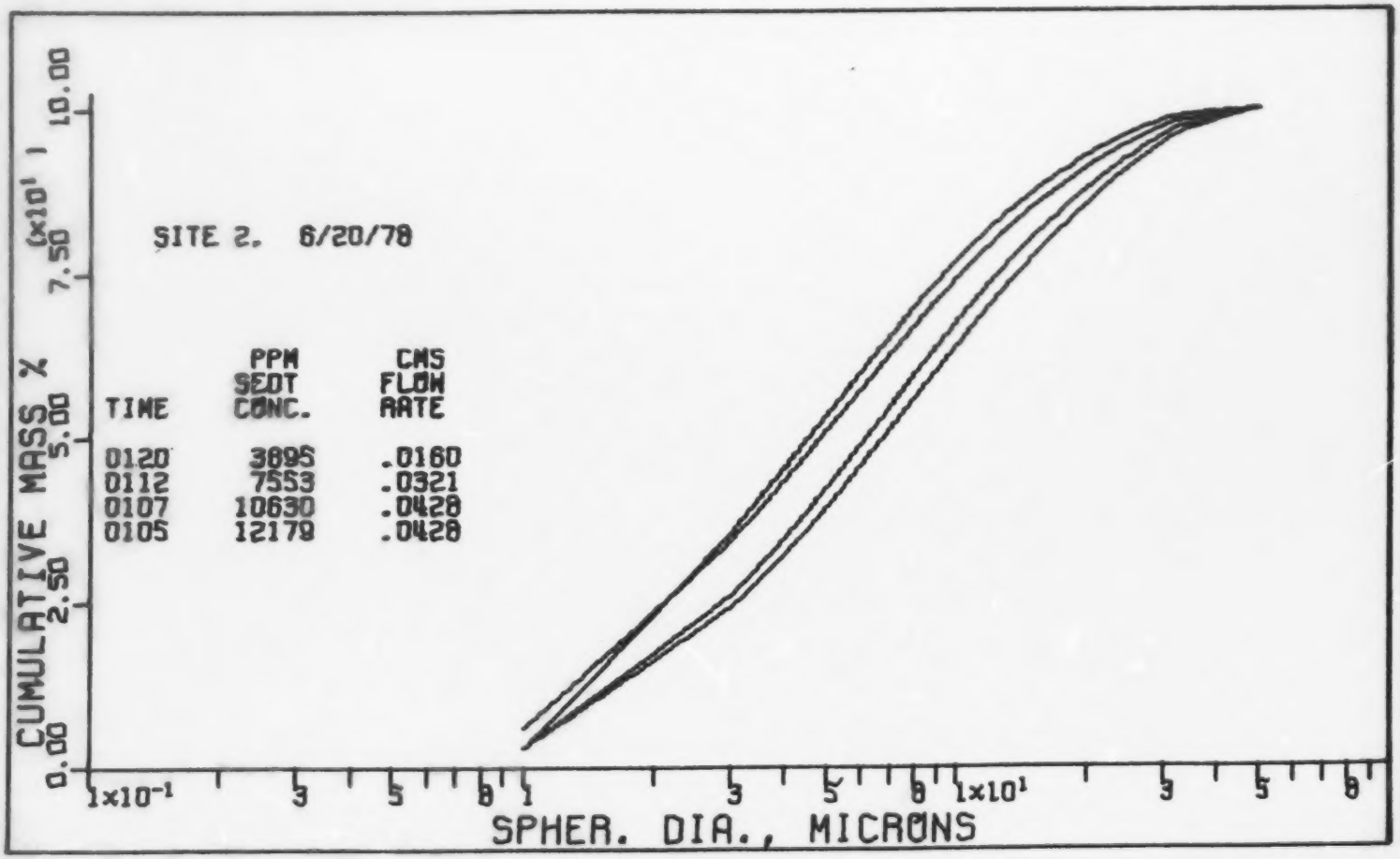


Figure 66. Particle size distributions for site 2, 6/20/78.

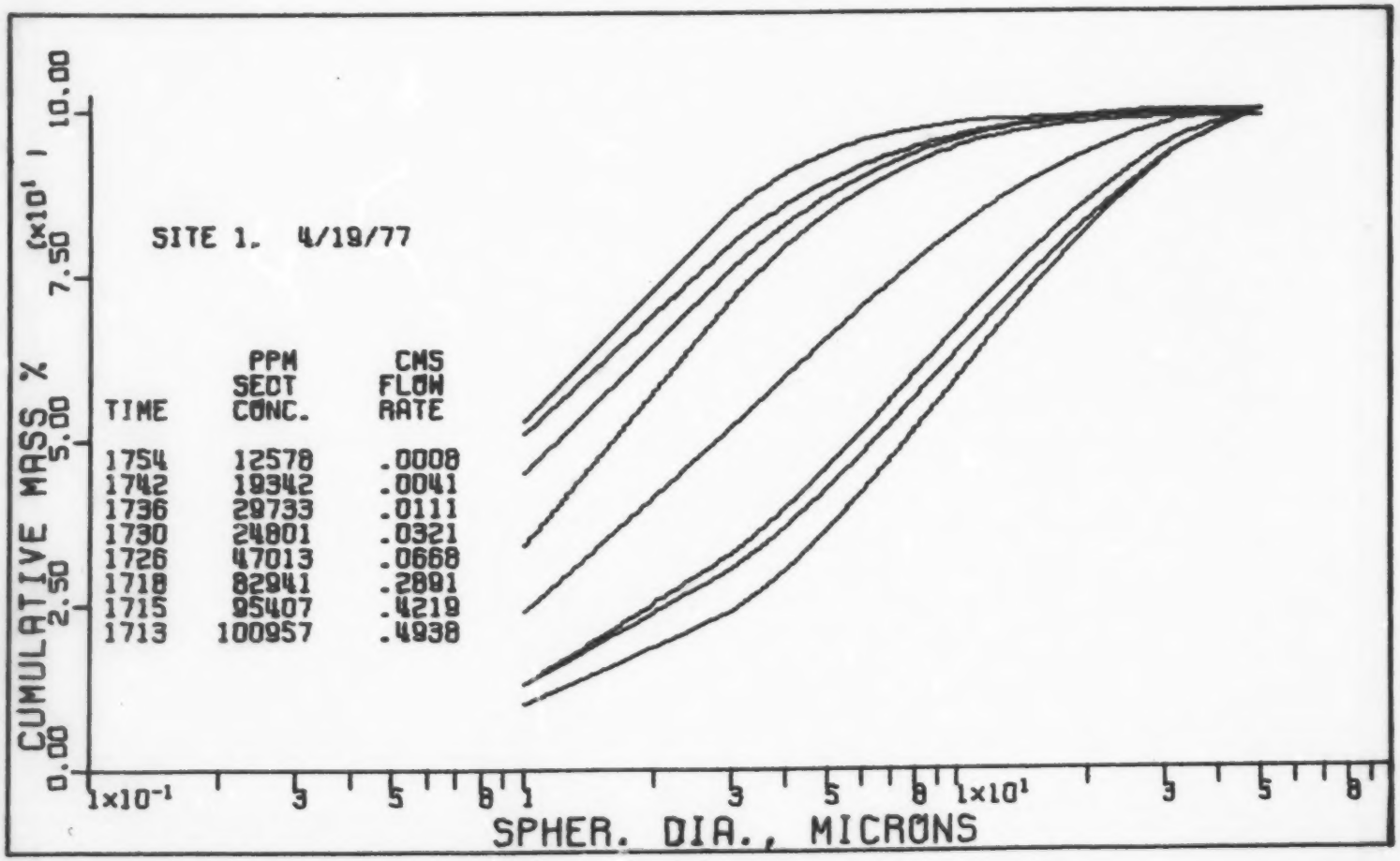


Figure 67. Particle size distributions for site 1, 4/19/77.

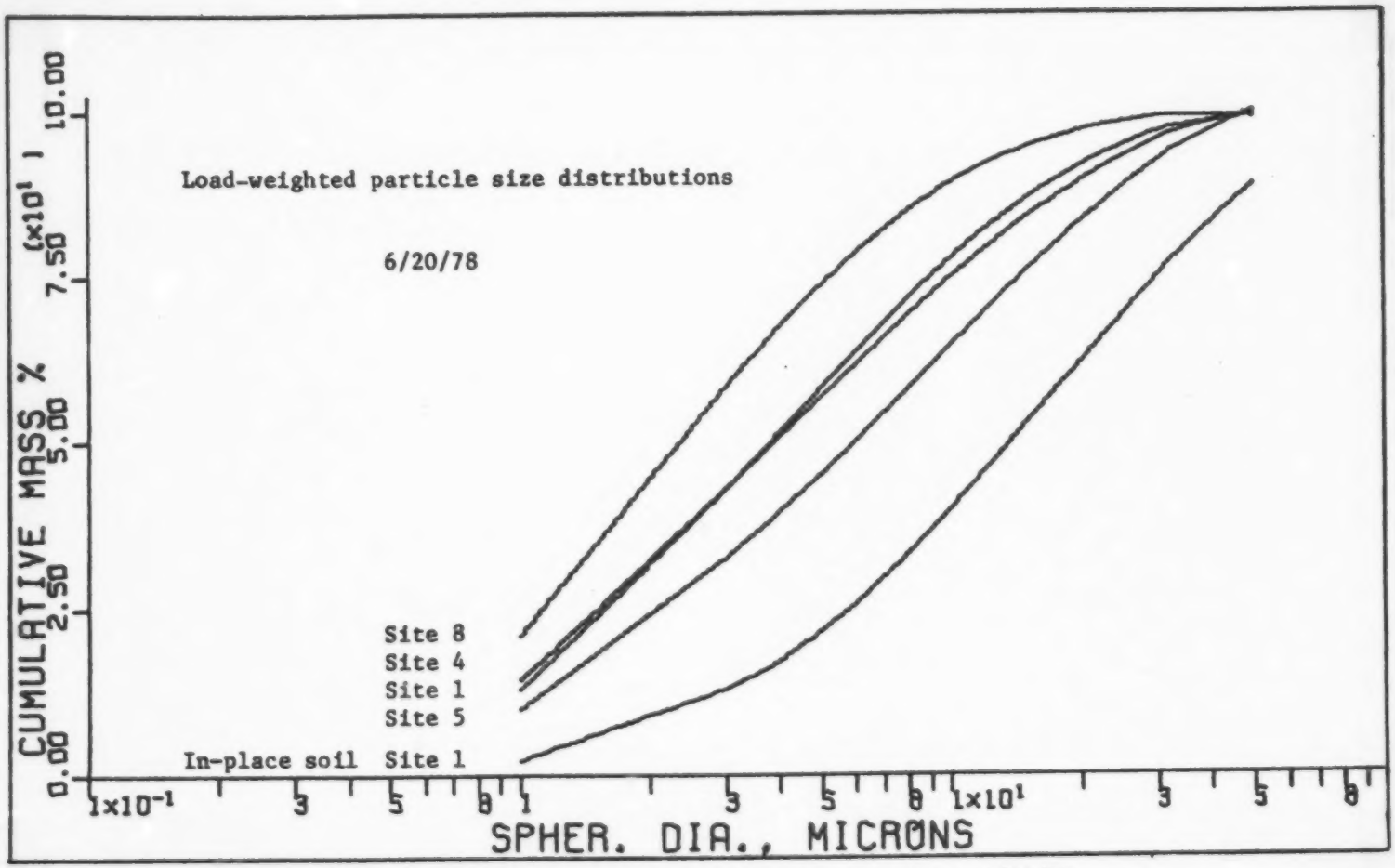


Figure 68. Load-weighted particle size distributions, 6/20/78.

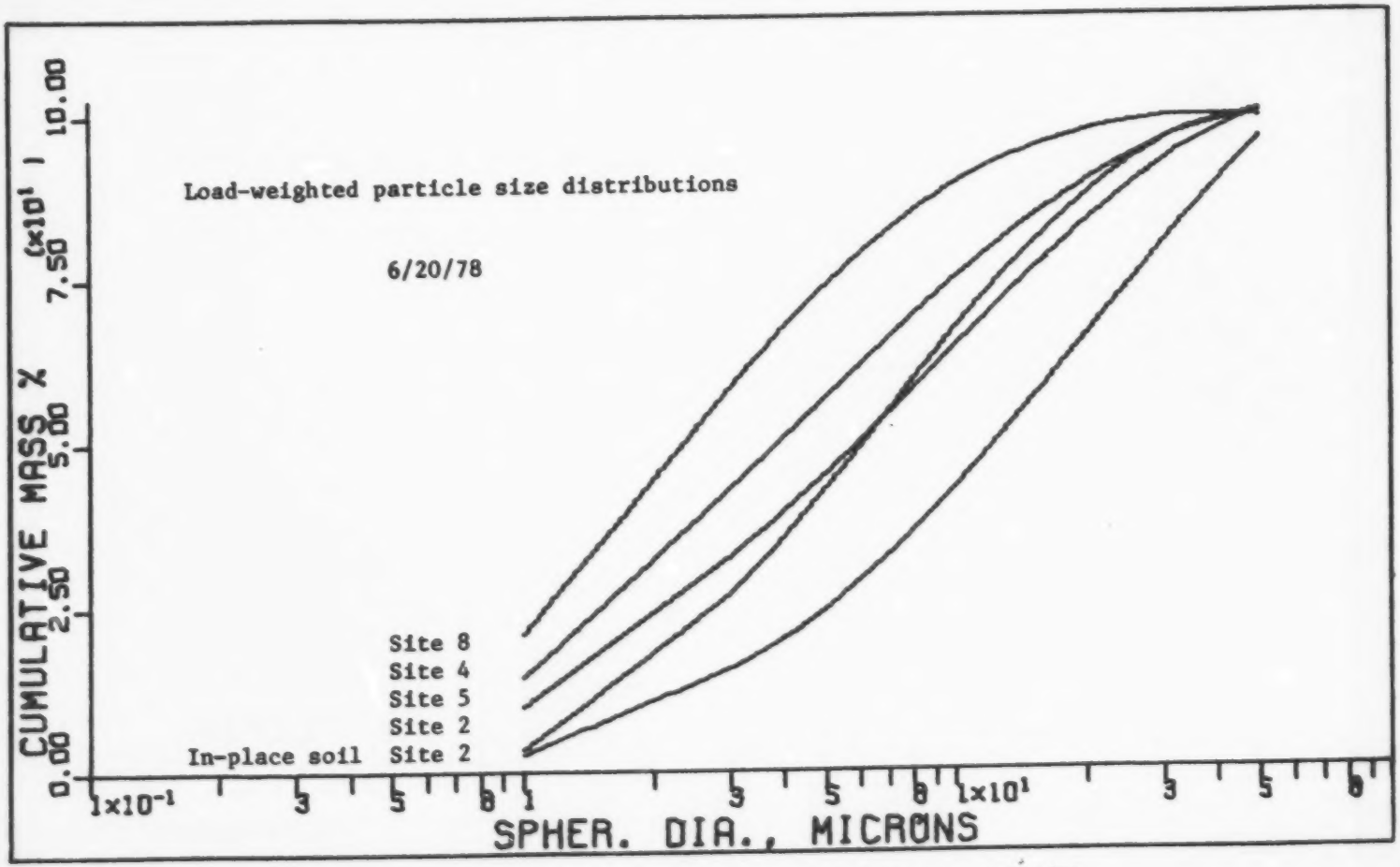


Figure 69. Load-weighted particle size distributions, 6/20/78.

Sediment deposits collected on the plastic discs above the flumes at sites 1 and 2 (1977 and 1978 only) varied considerably in thickness, partly because of deposition from local scour. The greatest amount of sediment deposited above the flumes in the 107 m^2 area was about 82,000 kg/ha on site 2, 5/27/78 (Appendix E). The deposition area is only a fraction of a hectare in this case. Particle sizes of sediment deposited on the discs were predominantly in the silt and clay range (Appendix E).

The highest sediment loads and concentrations were associated with the small row-crop watersheds, 5558 kg/ha for site 1 compared to 74 kg/ha for the entire watershed in 1977. Table 6 presents data for individual storm events and Table 7 summarizes the sediment yield data for each year (however, yield data for 1978 were low for sites 4 and 5 because flow from two storms was not sampled). Because of the abnormal rainfall pattern during the study, sediment yields were low in 1976 and 1977 for the entire watershed (1564 and 74 kg/ha, respectively). Despite the low rainfall observed in the late spring and early summer months of 1976 and 1977, sediment concentrations in runoff samples from the row-crop areas were relatively high, the highest recorded being 100,957 ppm at site 1, 4/19/77.

Channel Observations

Observations of particle size and channel changes were made. Sediment samples were taken along the banks of marked cross sections along Four Mile Creek. The data showed that on average 99% of the particles were finer than 50 μm, 95% finer than 32 μm, 55% finer than 16 μm, 35% finer than 8 μm, 20% finer than 4 μm, 12% finer than 2 μm, and 5% finer than 1 μm. Soil particles along the creek undoubtedly contributed some of the suspended sediment load at sites 4 and 5.

One of the 16 Four Mile Creek cross sections is presented in Figure 70 (see Appendix E for all cross sections). Table 9 summarizes the cross section areas and gives elevations (bank full level) to which these areas were calculated. Stations 1 through 10 include cross section data for 1976, 1977 and 1978; surveys of stations 7+50 and 11+00 through 15+00 were started in 1977. The average increase in cross sectional area of Four Mile Creek between 1967 and 1978 was 46.2%, the largest increase being station 1+00 (furthest downstream) which increased 132%. The average drop in elevation at the creek cross sections was 0.03 m/yr, and the average increase in width was 0.40 m/yr. These figures indicate that stream width increased about 10 times more than depth over the 11 year period (1967-1978).

To compute the channel contribution to suspended sediment load, the following assumptions were made: (1) the density of soil along the channel was 1340 kg/m^3, (2) the measured creek length between sites 5 and 4 was 6.44 km, and (3) the average increase of the measured cross sections represented the average for the total stream. The average increase in area between 1967 and 1978 was about 5.0 m^2. Therefore, the suspended sediment load contribution for 11 years was about 7769 kg/ha, or about 706 kg/ha-yr. For 1977 and 1978 channel erosion and suspended sediment contribution to Four Mile Creek were slightly below average.

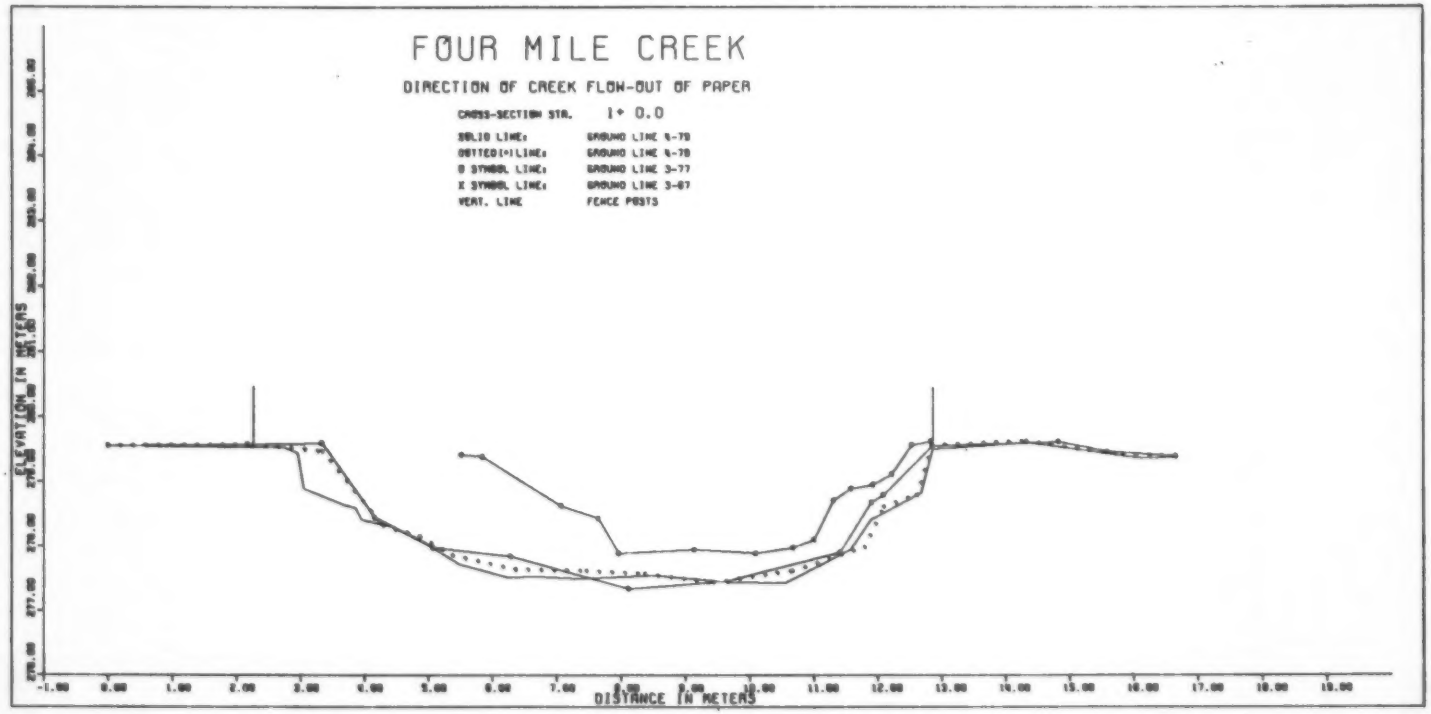


Figure 70. Four Mile Creek cross section 1+00.

TABLE 9. FOUR MILE CREEK CROSS SECTION AREA

Station	1967 Elevation* m	1967 Area m^2	1977 Elevation m	1977 Area m^2	1978 Elevation m	1978 Area m^2
1+00†	279.3	6.71	279.6	14.99	279.6	15.55
2+00†	280.6	11.73	280.6	18.99	280.6	19.57
3+00	281.5	10.94	281.5	15.66	281.5	14.97
4+00†	282.2	10.24	282.3	16.20	282.3	15.72
5+00†	283.2	10.53	283.1	13.51	283.2	14.30
6+00	283.9	13.06	284.0	20.79	284.0	19.82
7+00†	284.8	15.19	284.9	17.94	284.9	18.14
7+50§			290.9	5.02	290.9	5.35
8+00	285.3	8.44	285.4	7.48	285.4	7.94
9+00	286.4	10.49	286.5	12.73	286.5	12.12
10+00	287.1	8.33	287.4	13.95	287.4	13.04
11+00			287.7	9.82	287.7	9.78
12+00			290.5	15.71	290.5	15.97
13+00			294.3	9.62	294.3	9.20
14+00			298.0	4.65	298.0	4.52
15+00			303.3	10.05	303.3	10.37

*Cross section areas were measured up to that elevation at which overflow on the bank would occur.

†Identical cross section to that identified in 1967; others were placed as close as possible, as determined from maps. Cross sections 7+50 and 11+00-15+00 are new since 1977.

§Half Mile Creek.

Some additional observations were made to examine the nature of scour and bed material movement in the creek channel. The relocation in July 1978 of the brass chains installed in the creek bed at three locations in September 1977 indicated that the bed scours and redeposits. The maximum increase in bed elevation (as measured above the anchor rod reference) was 7.6 cm at a point between cross sections 12 and 13; the maximum decrease was 20 cm at two points between cross sections 6 and 7. Chains located at or near the thalweg were left on or near the surface; chains on the same cross section were buried up to 20 cm (Table E2-1, Appendix E, gives details).

Bed material samples taken during runoff at bridges between sections 4 and 5, and 12 and 13 showed sand contents (>62 μ) of 20.1 and 63.7%, respectively.

Samples were also taken above gaging sites 7 and 8, and at several points in the main channel above site 4, to determine the percentage of sands in the deposited sediments. Except for samples associated with sloughing banks, the percentage of sand ranged from about 25 to 65% in the main channel. In the channels of the ephemeral streams above sites 7 and 8, the percentage of sand ranged from 11 to 40%. Observations after storms showed that definite sorting of the sands from the finer materials took place at some locations along the waterways. Data for individual samples are included in Table E2-3.

Core samples of the creek bed were taken in April 1977. Three replicate samples were taken across the channel bottom at stations 2, 4, 6, 8 and 10 through 15. The cores were extruded from the sampler and divided into three layers (0-2.5, 2.5-7.5 and 7.5-20 cm). Particle size analysis of the sands was completed, but analysis of the silts and clays was not completed because of coagulation difficulties. The sizes of the creek bed sediments were varied; no pattern was observed with depth or location. The sediment sizes were generally much larger than the sediments coming from the watershed. About one-third of the samples contained less than 33% 62 μ sand; nearly half the samples contained more than two-thirds sand sized particles. Data for individual samples are presented in Table E2-4.

NUTRIENTS

Single Cover Watersheds

Crop Use of Nitrogen and Phosphorus (sites 1, 2 and 3) --

The N content of the corn and soybean crops (sites 1 and 2, grain and residue) is presented in Table 10. The N content of the corn far exceeded the amount of fertilizer N applied each year (126 to 140%) of that applied, suggesting that the corn crop was utilizing additional sources of N to fulfill its requirements. These sources could include excess N fixed by the soybeans, N mineralized in the organic matter of the soil, and N in precipitation. The amount of N removed from the field in the corn grain ranged from 87 to 95% of the annual application rate. These results indicate that the potential for loss of fertilizer N to the environment was probably very low, with the rate of N applied, under the existing field conditions.

TABLE 10. ANNUAL YIELDS, NITROGEN AND PHOSPHORUS CONTENT, OF THE CORN AND SOYBEAN CROPS AT SITES 1 AND 2

Crop	Year	Site	Fertilizer applied		Yield*		Nitrogen content			Phosphorus content		
			N	P	grain	residue	grain	residue	total	grain	residue	total
			kg/ha		tonne/ha		kg/ha			kg/ha		
corn	1976	2	135	39	7.86	7.74	122 (90%)†	60 (44%)	182 (134%)	23 (59%)	7 (18%)	30 (77%)
corn	1977	1	135	39	7.34	6.72	118 (87%)	52 (39%)	170 (126%)	25 (64%)	6 (15%)	31 (79%)
corn	1978	2	135	39	8.14	7.84	128 (95%)	61 (45%)	189 (140%)	26 (67%)	7 (18%)	22 (85%)
soybeans	1976	1		34	2.32	2.24	151	13	164	14 (41%)	2 (6%)	16 (47%)
soybeans	1977	2		34	2.50	2.24	163	13	176	15 (44%)	2 (6%)	17 (50%)
soybeans	1978	1		34	3.32	2.24	216	13	229	20 (59%)	2 (6%)	22 (65%)

*Yield was calculated on an oven dry basis.

†Percent of annual application of N and P; values for N are higher than usually reported, and measured nitrate losses from the whole watershed were significant, therefore the recommendation for improved N management is still valid.

No fertilizer N was applied to the soybeans during the years of the study. It was assumed that the amount of N fixed by the soybeans and mineralized by the soil was adequate for optimal crop growth, and that there was some additional fixed or mineralized N remaining in the soil at the end of the growing season that served as a potential source of N for the next season's corn crop.

The P content of the corn and soybean crops (grain and residue) is also presented in Table 10. The P content of both the corn and soybeans amounted to a significant portion of the fertilizer P applied each year. The corn crops contained an equivalent of 77 to 85% of the annual application of fertilizer P, while the soybean crops contained 47 to 59% of the level of fertilizer P applied. The P removal with the corn grain amounted to an equivalent of 59 to 67% of the fertilizer P applied. The P in the harvested portion of the soybeans also amounted to a substantial proportion (41 to 53%) of the amount of fertilizer P applied.

The yield of grass from the pasture at site 3 was not measured; the crop use of N and P, however, may be reflected in the N and P levels of the soil core samples taken during various times of the season.

Distribution and Movement of Nitrogen and Phosphorus in the Soil Profile

Variability of the nutrient content in the soil profiles at the three sites makes it difficult to establish statistically significant differences from one soil area to the next; such variability has been reported in other watershed studies (Smith et al., 1978). For comparison purposes, the nutrient levels in the soil profile at each site for a given sampling time were determined by averaging the nutrient levels of the sampling locations at each site.

The NO_3-N concentrations in the upper and middle layers of the soil profile increased after fertilization of corn crops (Figure 71), indicating that some downward movement of N occurred. As the season progressed the NO_3-N concentrations in the upper layers decreased without an increase in the NO_3-N concentrations in the lower layers of the profile; similar trends were observed under corn during 1976 and 1978. The concentrations of NO_3-N remaining in the soil profile at the end of each growing season for each site are presented in Figures 72 through 74. There did not appear to be any significant movement of NO_3-N into the lower layers of the soil profile (90-150 cm).

The AVL-P concentrations in the upper layers (0-30 cm) of the soil profile increased after fertilization at all three sites each spring. Recent tillage appeared to affect the distribution of AVL-P in the soil profile. The field that was disked prior to planting had the highest concentrations of AVL-P in the upper (0-1 cm) layer, while the field that was plowed showed higher concentrations in the lower layer (7.5-15 cm). The highest concentrations of AVL-P at the pasture site occurred in the upper (0-1 cm) layer because the fertilizer was not incorporated. The varying concentrations of AVL-P at different depths were still evident at the end of each growing season (Table 11).

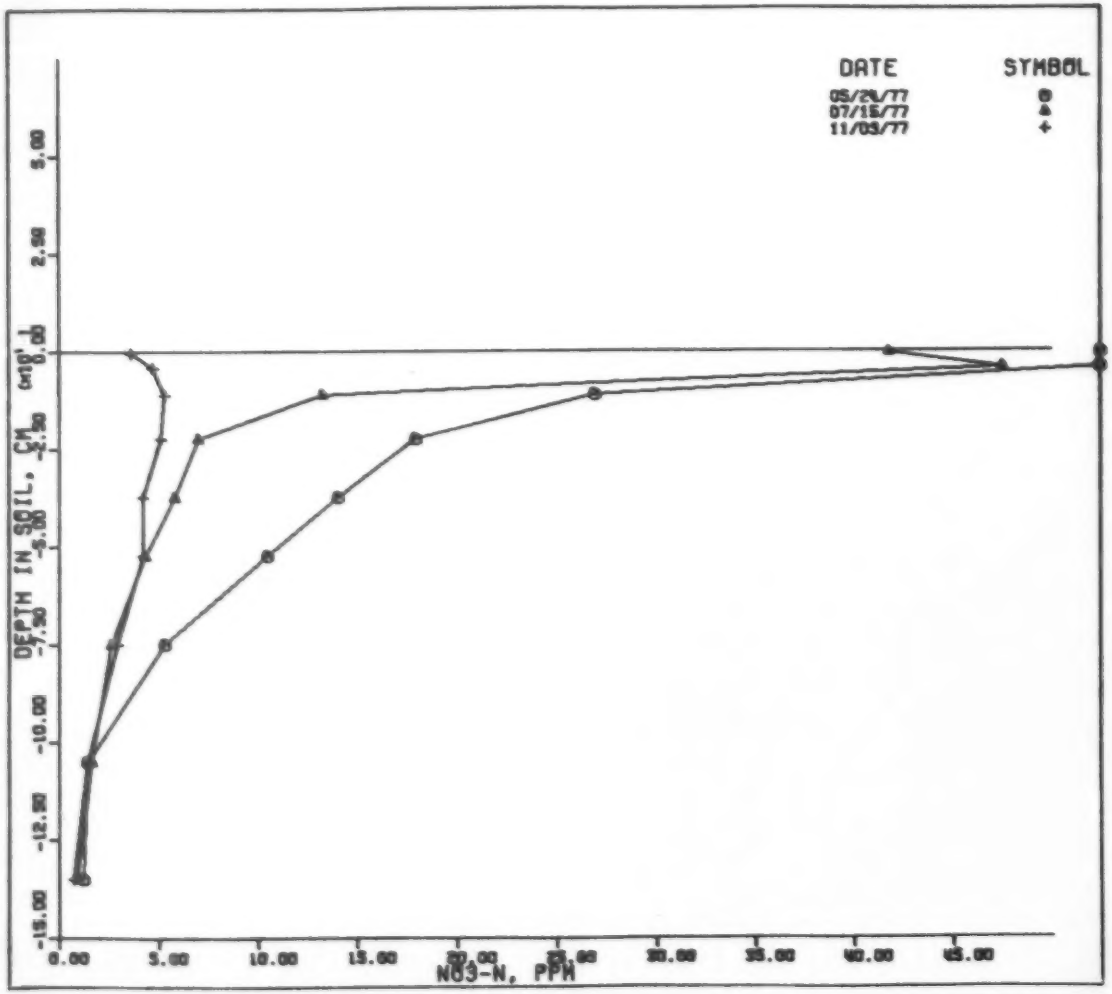


Figure 71. Soil NO_3-N concentration depth profiles at site 1, 1977.

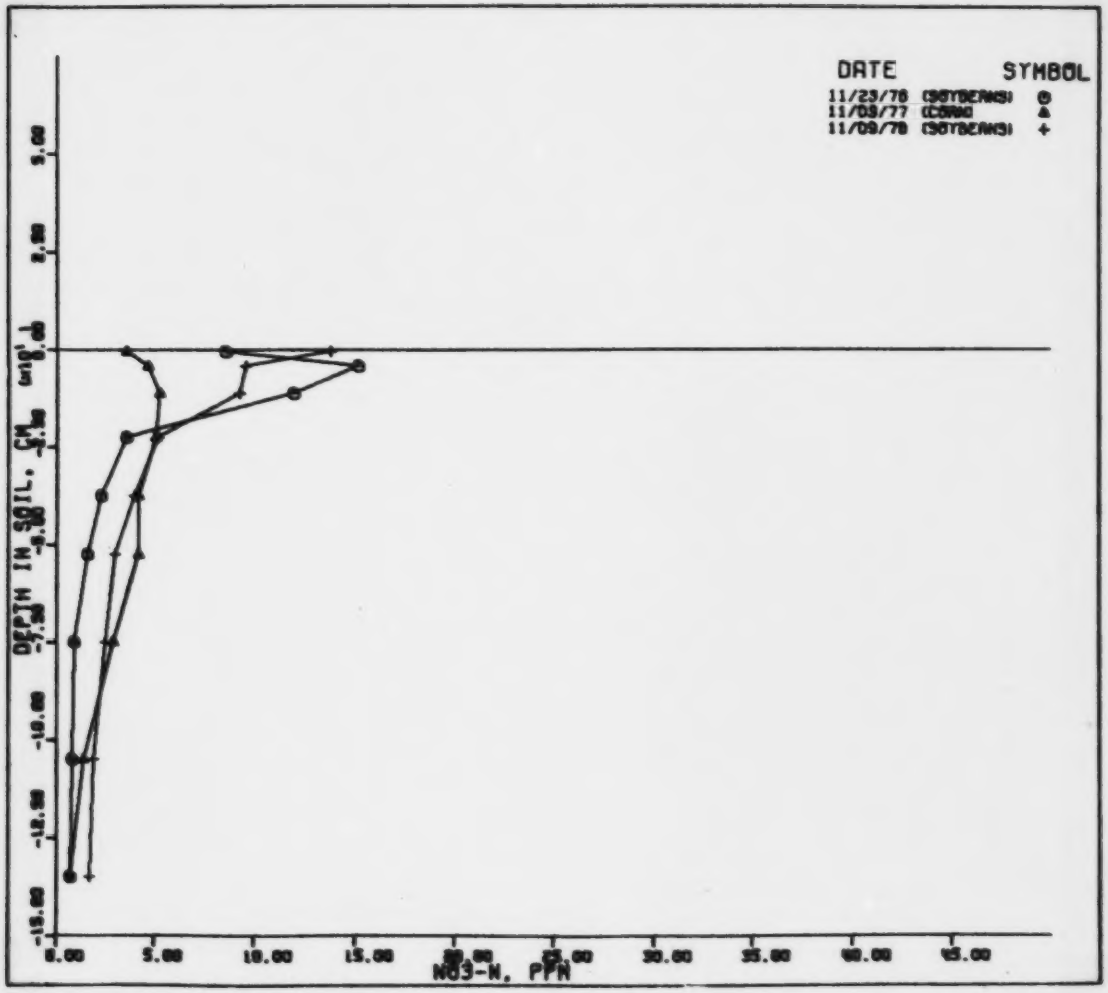


Figure 72. Soil NO_3-N concentration depth profiles at site 1, November 1976, 1977 and 1978.

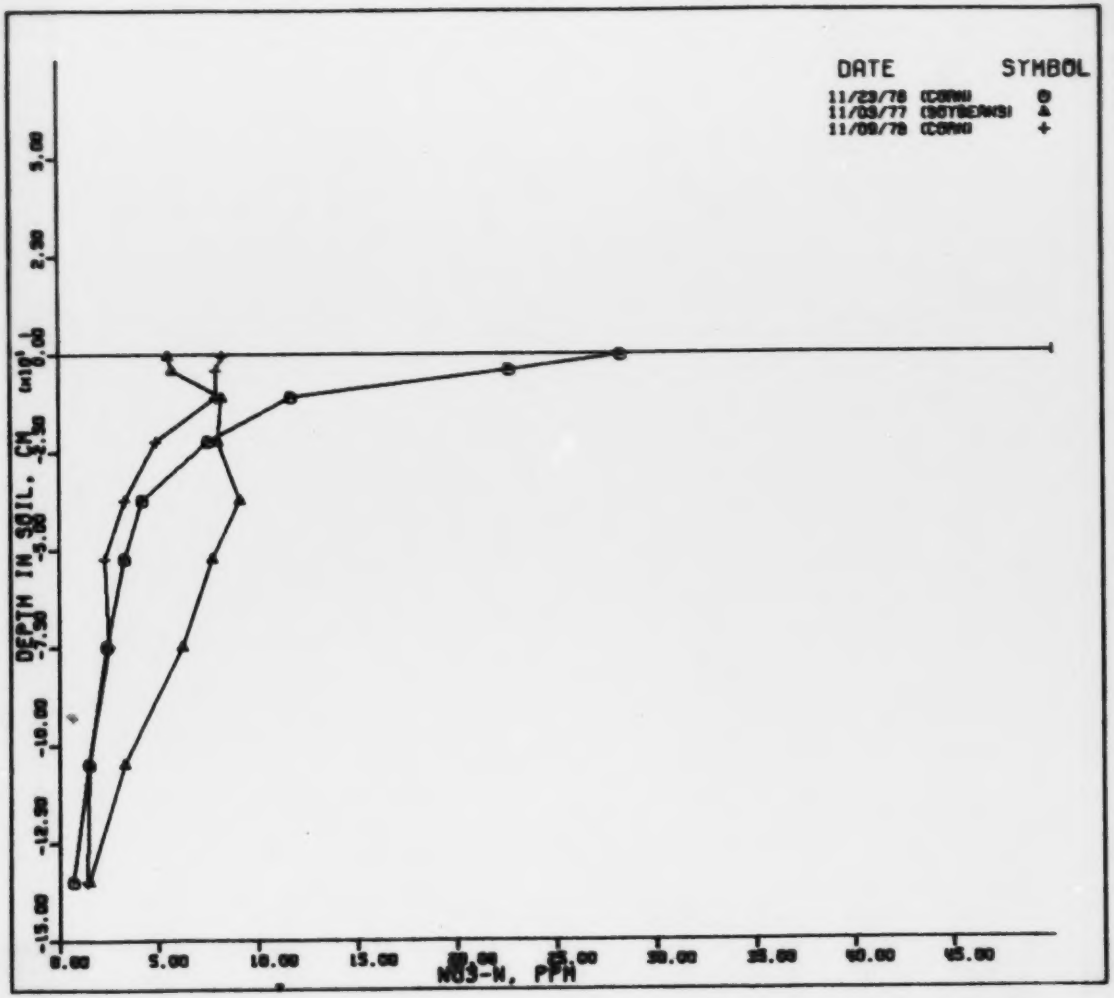


Figure 73. Soil NO_3-N concentration depth profiles at site 2, November 1976, 1977 and 1978.

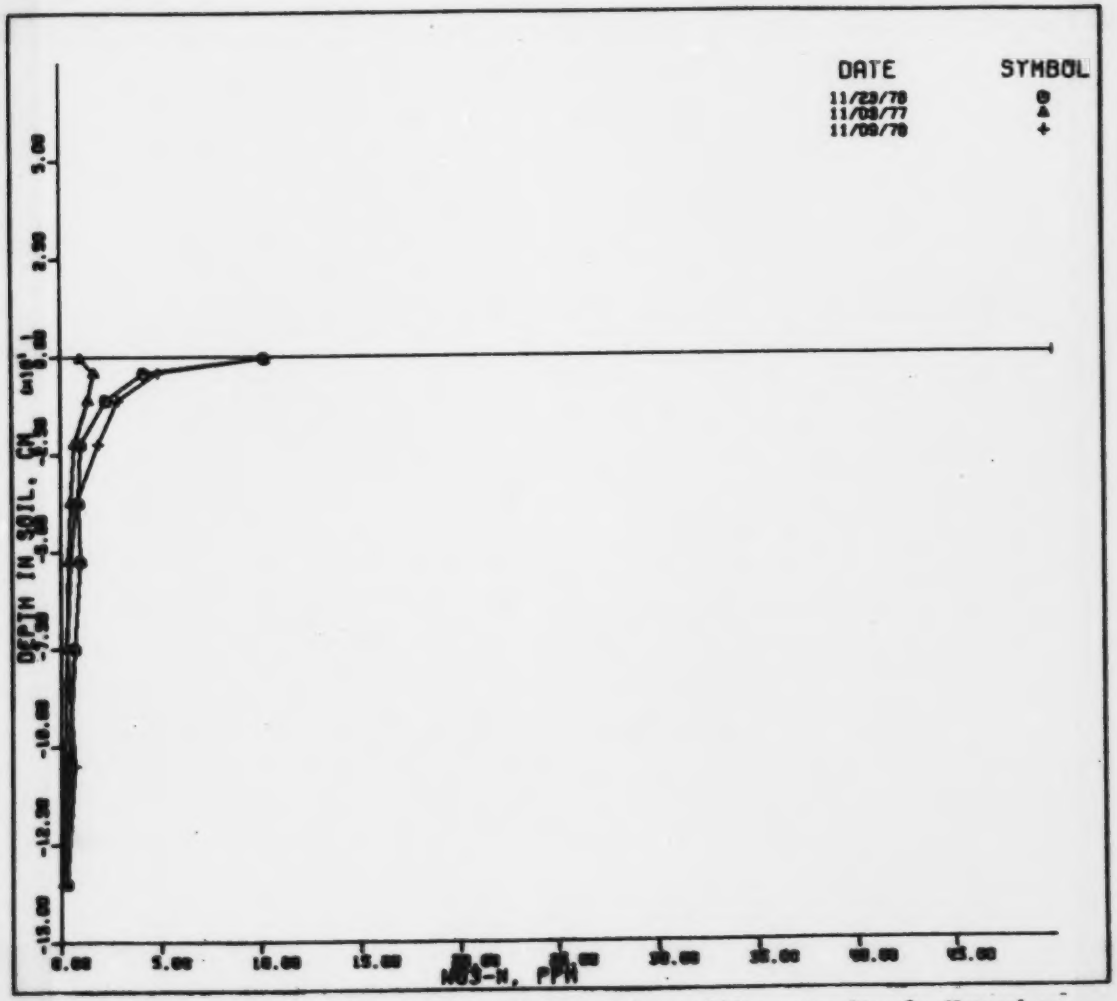


Figure 74. Soil NO_3-N concentration depth profiles at site 3, November 1976, 1977 and 1978.

TABLE 11. AVERAGE SOIL AVL-P CONCENTRATIONS AND STANDARD DEVIATIONS IN THE 20 cm SOIL PROFILES AT SITES 1, 2, AND 3, SPRING AND FALL 1976, 1977 AND 1978

Soil layer cm	Mean AVL-P ppm					
	Site 1	Site 2	Site 3	Site 1	Site 2	Site 3
	5/28/76			11/23/76		
0-1				13.3 (4.0)*	25.6 (8.3)	21.6 (13.5)
1-7.5	8.3 (5.4)	22.0 (8.4)	4.8 (3.1)	10.1 (5.2)	18.4 (7.5)	2.2 (0.2)
7.5-15	17.5 (9.7)	7.4 (5.7)	2.1 (1.3)	9.5 (6.5)	5.3 (4.1)	2.4 (2.0)
15-30	5.6 (4.5)	2.8 (2.3)	1.9 (0.9)	4.1 (3.2)	5.5 (5.3)	1.5 (1.2)
	5/24/77			11/3/77		
0-1	29.1 (7.2)	11.2 (5.3)	37.9 (24.1)†	21.5 (3.3)	8.2 (2.9)	34.3 (17.7)
1-7.5	18.5 (6.3)	15.0 (8.3)	14.4 (24.6)	10.6 (5.4)	6.5 (3.4)	6.7 (3.9)
7.5-15	10.5 (5.2)	14.0 (6.4)	6.7 (10.2)	7.5 (3.4)	10.5 (6.2)	9.6 (10.3)
15-30	5.9 (3.8)	6.6 (6.3)	4.8 (5.0)	4.7 (3.1)	3.3 (0.8)	5.1 (2.4)
	6/12/78		7/27/78	11/9/78		
0-1	11.1 (2.6)	19.8 (1.7)	43.2 (8.7)	12.5 (5.4)	15.6 (7.6)	39.7 (6.3)
1-7.5	9.3 (0.9)	22.8 (3.8)	7.9 (4.5)	13.3 (7.5)	9.9 (5.3)	10.8 (4.7)
7.5-15	26.4 (11.5)	15.0 (1.9)	5.3 (2.3)	14.9 (2.0)	8.3 (5.8)	7.4 (7.1)
15-30	9.1 (5.0)	10.7 (2.7)	10.4 (13.4)	3.3 (2.0)	2.1 (1.9)	5.1 (2.0)

*Standard deviation in parentheses.

†Large variations between samples may be caused by animal wastes on the ground surface at this site.

The amount of AVL-P in the upper 30 cm of the soil profile was also calculated (Table 12). Even though there were some significant changes in the concentrations of AVL-P in some layers from one fall to the next, there did not appear to be any significant increase in the total amount of AVL-P present in the upper 30 cm at sites 1 and 2. The total amount of AVL-P at site 3, however, was significantly higher in 1977 and 1978 than in 1976 (1% level of confidence). Since no fertilizer P was added in 1976, some of the increase may be due to fertilization.

Subsurface Loss of Nitrogen and Phosphorus

The soil core samples indicated that movement of NO_3-N occurred in the upper layers of the profile. Tile water extracted from the tile lines draining the waterways at sites 1 and 2 contained NO_3-N and very small amounts of PO_4-P (0.03 ppm) and NH_4-N (0.01 ppm). The tile did not flow until the fall of 1977, due to unusually dry moisture conditions. The concentrations of NO_3-N in the tile water in the fall of 1977 averaged 7.7 and 18.1 ppm at sites 1 and 2, respectively. A comparison of NO_3-N in the soil profile and in the tile water indicated that the tile lines were intercepting water equivalent to that at about the 90 cm depth. In 1978 the NO_3-N levels in the tile water remained relatively constant at site 1, but decreased as the growing season progressed at site 2. The NO_3-N concentrations in the tile at site 2 in the fall of 1978 ranged from 6 to 8 ppm, again indicating that water from the 90 cm level in the soil was being intercepted by the tile lines at both sites.

The loss of NO_3-N through the tile lines was negligible in 1976 and 1977 because of low flows. In 1978, some NO_3-N was lost in the tile flow, however no measurements of flow were made.

Surface Runoff Loss of Nitrogen and Phosphorus

Nutrient losses associated with surface runoff at the three sites are presented in Table 13. Surface runoff during 1977 was extremely low at sites 1 and 2, due to a lack of snowmelt and an abnormally low amount of precipitation in the spring and summer. The pasture at site 3 normally produced lower amounts of runoff, except in 1977 when an unusually severe rainstorm occurred at that site and not at sites 1 and 2.

Soluble nutrient losses in the surface runoff at the three sites were extremely low compared to the amount of fertilizer applied. Soluble NH_4-N and PO_4-P concentrations were generally higher at site 3 than at sites 1 and 2, possibly due to animal wastes on the ground surface.

Losses of total N associated with the sediment accounted for a large percentage of the total surface runoff losses of N (60 to 73% from the corn, and 48 to 59% from the soybeans; Table 14). N losses, both soluble and total, were generally higher from the fields planted to corn than the fields planted to soybeans.

TABLE 12. AVERAGE TOTAL AVL-P CONTENT IN THE 30 cm SOIL PROFILES AT SITES 1, 2 AND 3, NOVEMBER 1976, 1977 AND 1978

Sample location	AVL-P (kg/ha) Site 1			Site 2			Site 3		
	1976	1977	1978	1976	1977	1978	1976	1977	1978
1	35.1	48.4	49.8	66.7	23.7	37.0	8.4	49.6	22.4
2	22.0	17.1	37.1	16.0	22.0	16.2	14.0	27.8	27.7
3	12.3	17.7	19.0	16.5	14.6	12.1	6.4	30.0	36.6
4	32.6	24.0	20.2	26.7	39.8	40.7	14.3	13.3	46.9
5	27.7	32.5	28.0	36.5	14.5	19.6	5.7	28.6	24.4
6	39.8	30.6	30.2	43.5	17.3	21.5			
7	20.6	21.8	29.6	38.0	32.5	8.4			
8	26.9	37.9	66.7	38.9	29.6	29.2			
mean	28.5	28.8	35.1	35.4	24.3	23.1	9.8	29.9	31.6
standard deviation	8.8	10.8	16.1	16.4	9.1	11.6	4.1	12.9	10.1

TABLE 13. NUTRIENTS AND SEDIMENT IN PRECIPITATION, SURFACE RUNOFF, AND CREEK FLOW

	Year	Depth	NH_4-N		NO_3-N		PO_4-P		Cl		TDS		Sediment	
		mm	ppm	kg/ha	ppm	kg/ha	ppm	kg/ha	ppm	kg/ha	ppm	kg/ha	ppm	kg/ha
Precip.	1976	554	.78	4.20	0.8	4.1	.054	.290	1.5	8.2	33	179	--	--
	1977	828	.87	7.20	1.0	8.3	.028	.230	1.5	12.5	51	420	--	--
	1978	878	.78	6.85	0.8	6.8	.063	.550	2.0	17.6	50	439	--	--
Runoff														
Corn:														
Site 2	1976	51.3	.42	.22	5.3	2.7	.047	.024	2.1	1.1	165	85	10210	5387
Site 1	1977	11.9*	2.66	.32	0.7	0.1	.819	.097	7.6	0.9	134	16	43373	5558
Site 2	1978	47.3	.43	.20	3.0	1.4	.112	.053	1.7	0.8	58	27	5173	2488
Soybeans:														
Site 1	1976	58.6	.09	.05	3.5	2.1	.029	.017	7.3	4.3	134	78	4739	2779
Site 2	1977	0.9	.06	<.01	0.2	<0.1	.046	<.001	0.9	<0.1	83	1	20457	180
Site 1	1978	46.4	.24	.11	1.7	0.8	.349	.162	8.0	3.7	80	37	1869	867
Pasture:														
Site 3	1976	13.1	.20	.03	0.8	0.1	1.154	.151	4.0	0.5	133	17	305	40
	1977	8.7†	.62	.05	0.4	<0.1	.898	.078	1.7	0.1	56	5	312	27
	1978	6.1	.54	.03	0.5	<0.1	1.051	.064	3.2	0.2	89	5	79	5
Intra basin														
Site 7§	1976	6.7	--	--	--	--	--	--	--	--	--	--	--	--
	1977	2.6	.02	<.01	0.5	<0.1	.173	.004	3.6	0.1	108	3	992	26
	1978	32.1	1.00	.32	3.0	1.0	1.361	.437	9.0	2.9	148	47	585	188
Site 8§	1976	8.9	--	--	--	--	--	--	--	--	--	--	--	--
	1977	9.2	.22	.02	0.9	<0.1	.174	.016	2.3	0.2	68	6	7966	736
	1978	42.0	.71	.30	3.7	1.5	.570	.240	10.0	4.2	115	48	2029	852

*40% of this runoff occurred within 24 h of fertilizer application and incorporation.

†A very localized rain caused 98% of this runoff

§Only one sample taken on sites 7 and 8; limited number on sites 5 and 6 since flow monitoring began 5/29/76 for these sites.

TABLE 13 (continued).

	Year	Depth	NH_4-N		NO_3-N		PO_4-P		Cl		TDS		Sediment	
		mm	ppm	kg/ha	ppm	kg/ha	ppm	kg/ha	ppm	kg/ha	ppm	kg/ha	ppm	kg/ha
Creek														
Site 6§	1976	13.1	.02	<.01	5.8	0.8	.029	.004	11.0	1.4	317	42	59	8
	1977	69.9	.14	.10	11.2	7.8	.201	.141	12.0	8.4	306	214	602	421
	1978	250.5	.15	.38	11.3	28.3	.149	.374	13.2	33.0	280	703	793	1988
Site 5§	1976	13.5	.02	<.01	5.8	0.8	.027	.004	17.9	2.4	349	47	52	7
	1977	52.1	.40	.21	11.6	6.1	.299	.156	23.1	12.1	434	226	182	95
	1978	203.5	.38	.77	12.5	25.5	.161	.328	17.1	34.7	308	627	793	1614
Site 4	1976	122.7	.24	.29	7.9	9.7	.066	.081	12.1	14.8	271	333	1274	1564
	1977	43.6	.23	.10	10.0	4.4	.114	.050	17.3	7.6	330	144	171	74
	1978	197.4	.37	.74	11.0	21.6	.107	.212	15.3	30.1	278	549	509	1004

TABLE 14. ESTIMATED NUTRIENTS LOST WITH SEDIMENT*

Site	Year	Ext-N	Kjel-N†	AVL-P	Tot-P†
			g/ha		
1	1976	95	5099	76	2795
1	1977	190	8983	151	5199
1	1978	30	1790	24	926
2	1976	184	10188	147	5055
2	1977	6	323	5	177
2	1978	85	5200	68	2657
4	1976	74	4270	104	2137
4	1977	4	204	5	102
4	1978	50	2882	70	1442

*Estimated from sediment loss and average concentrations.

†Estimated for sites 1 and 2 from equation relating nutrient concentrations in sediment to sediment concentration plus sediment loss data.

Loss of total-P associated with the sediment usually accounted for a large percentage of the total loss of P in the surface runoff (Table 14). The loss of inorganic P, however, was very low for all years at all three sites, never greater than 1% of the fertilizer applied.

The losses of N and P associated with surface runoff at the three sites were very low compared to the amount of fertilizer N and P applied. The losses of soluble nutrients in surface runoff seldom exceeded the amount deposited with precipitation (Table 13). The results showed, however, that losses of N and P with sediment in surface runoff can be significant if heavy rainfall occurs in the spring and early summer.

Mixed Cover Watersheds

To indicate how nutrients in drainage (including Cl and total dissolved solids) from complex mixed cover watersheds related to nutrients from single cover watersheds, to nutrients in precipitation, and to nutrients in subsurface tile drainage, Table 13 provides flow-weighted average concentrations and kg/ha losses for runoff and creek sites 1 through 8, and for precipitation. Table 15 presents arithmetic averages for tile drainage sites 10 through 19.

Considering NH_4-N first, the data in Tables 13 and 15 show that NH_4-N levels in surface runoff (sites 1, 2, 3, 7 and 8) were usually higher (particularly for fertilized corn and the pasture site) than for tile flow. As a result during higher stream flows, during which some surface runoff was occurring, either as rainfall-runoff or snowmelt, NH_4-N levels instream usually rose, occasionally exceeding the 2 ppm concentration possibly

TABLE 15. NUTRIENTS IN TILE FLOW (PPM)

Site	NH_4-N Avg.	NH_4-N Std. dev.	NO_3-N Avg.	NO_3-N Std. dev.	PO_4-P Avg.	PO_4-P Std. dev.	Cl Avg.	Cl Std. dev.	TDS Avg.	TDS Std. dev.
1976										
10	6.37	1.38	6.77	1.87	0.036	0.066	6.52	2.93	300	47
11	0.11	0.20	7.36	1.58	0.084	0.155	11.88	3.13	289	33
12	0.05	0.11	7.59	2.65	0.043	0.039	10.86	4.01	286	60
13	0.06	0.10	14.16	1.96	0.047	0.039	16.91	3.32	362	50
14	0.17	0.26	10.27	2.52	0.158	0.184	14.87	7.16	368	46
15	0.06	0.08	9.13	1.65	0.095	0.080	14.27	4.43	315	57
16	0.04	0.07	16.06	3.79	0.046	0.019	30.86	12.44	434	55
17	0.02	0.02	13.40	3.14	0.037	0.043	14.76	2.64	340	50
1977										
10	0.04	0.05	8.41	1.54	0.028	0.014	6.62	1.54	317	82
11	0.25	0.62	9.05	5.79	0.276	0.707	5.76	3.60	218	111
12	0.03	0.03	14.18	4.69	0.052	0.023	13.88	3.71	329	56
13	0.02	0.02	21.94	3.96	0.055	0.031	20.25	6.35	395	63
14	0.21	0.33	16.29	4.43	0.232	0.200	26.94	23.39	444	73
15	0.15	0.17	14.60	4.90	0.261	0.134	56.67	37.11	536	156
16	<0.01	<0.01	28.46	6.08	0.146	0.057	50.76	10.62	576	165
17	0.00	0.00	33.00	1.81	0.067	0.004	25.06	4.15	454	95
18*	0.02	0.01	7.67	1.06	0.031	0.007	6.08	1.24	344	29
19*	0.01	0.02	18.12	2.11	0.024	0.009	21.17	4.90	367	80
1978										
10	0.02	0.04	10.82	3.04	0.027	0.035	9.36	2.44	278	61
11	0.01	0.04	12.88	3.27	0.043	0.079	11.76	2.66	268	59
12	0.10	0.40	13.90	4.57	0.079	0.167	18.38	3.88	316	76
13	0.24	1.09	18.18	6.74	0.184	0.447	20.40	5.67	388	77
14	0.34	1.04	13.26	4.92	0.274	0.432	22.34	7.39	380	68
15	0.13	0.40	10.87	4.13	0.178	0.203	21.79	9.88	340	59
16	0.06	0.20	20.26	6.70	0.110	0.085	29.10	7.18	453	83
17	0.07	0.28	16.42	5.79	0.073	0.138	20.82	5.48	359	85
18	0.01	0.02	6.13	1.64	0.040	0.034	10.76	1.74	248	51
19	<0.01	0.01	10.86	3.97	0.016	0.016	14.31	3.24	290	83

*Sites 18 and 19 were established in 1977.

toxic to fish. This is evident in Figures 75 and 76 for runoff events in June of 1976 and 1978. Instream levels at higher flows also often exceed the 0.5 ppm criterion for surface water for public water supplies, particularly during snowmelt, as shown in Figure 77. During low flow periods defined as base flow (i.e., no surface runoff and no flow from tile drains sampled in the watershed), NH_4-N concentrations are usually <0.5 ppm in the summer, as shown in Figure 78 for a long dry spell in 1976 when flow decreased to 0.025 mm/day. However, during winter base flow (<0.05 mm/day) NH_4-N concentrations averaged 0.47 ppm as shown in Figure 79. The high value of 2.7 ppm (Table 13) observed for site 1 in 1977 was the impact of fertilization, where 135 kg/ha of urea and ammonium fertilizer were applied (only partially incorporated by disking) within 24 h before a surface runoff event. For this 4.5 mm runoff event, NH_4-N concentrations averaged 5.8 ppm. For the rest of the year, NH_4-N concentrations in surface runoff averaged 0.1 ppm.

In passing over or through the soil, NH_4-N dissolved in precipitation is extracted such that concentrations in both surface runoff and tile flow averaged less than that in precipitation (0.8 ppm). The amount of NH_4-N lost from the watershed as a whole averaged only a fraction (6%) of that deposited with precipitation.

NO_3-N concentrations in Four Mile Creek exceeded the 10 ppm standard for public water supplies for several periods during sustained high flows. During higher flows the effect of the NO_3-N concentration differences between surface runoff and shallow subsurface drainage in instream levels was evident. As shown in Tables 13 and 15, NO_3-N concentrations in surface runoff from row-cropped and particularly from pastured areas were generally much lower than those for shallow subsurface drainage from tile drains. This effect is evident for two June storms shown in Figures 75 and 76 for 1976 and 1978. As surface runoff passed (a matter of a few hours) and shallow subsurface drainage again dominated the stream flow, NO_3-N concentrations returned to their previous levels, if not higher. As shown in Figure 77 for a snowmelt period, NO_3-N concentrations ranged from about 3 to 5 ppm during high snowmelt flows.

During low flow periods in the winter, defined as base flow, NO_3-N concentrations averaged less than 5 ppm, as illustrated in Figure 79 for January and part of February (before snowmelt) in 1976 (average flow rate <0.05 mm/day). During an extended dry period beginning after the June storm in 1976, NO_3-N concentrations decreased with flow to <2 ppm at flow <0.025 mm/day (Figure 78). During the very dry period of June and early July, 1977, when the stream ceased flowing on occasion, NO_3-N concentrations averaged less than 0.3 ppm.

The effect of NO_3-N concentration differences between base and tile flow on instream levels was evident for the fall period of 1977 (Figure 80). After the very dry twelve month period prior to August, rains in August and September caused the tile drains to flow again. As shown for two rainfall periods in September and October (another occurred in December), NO_3-N concentrations increased with flow by about 9 to 14 ppm after surface runoff had passed. After each increase there was a gradual decline as the shallow soil profile drained. Irregularities in these declines were correlated with small rains and small decreases in flow.

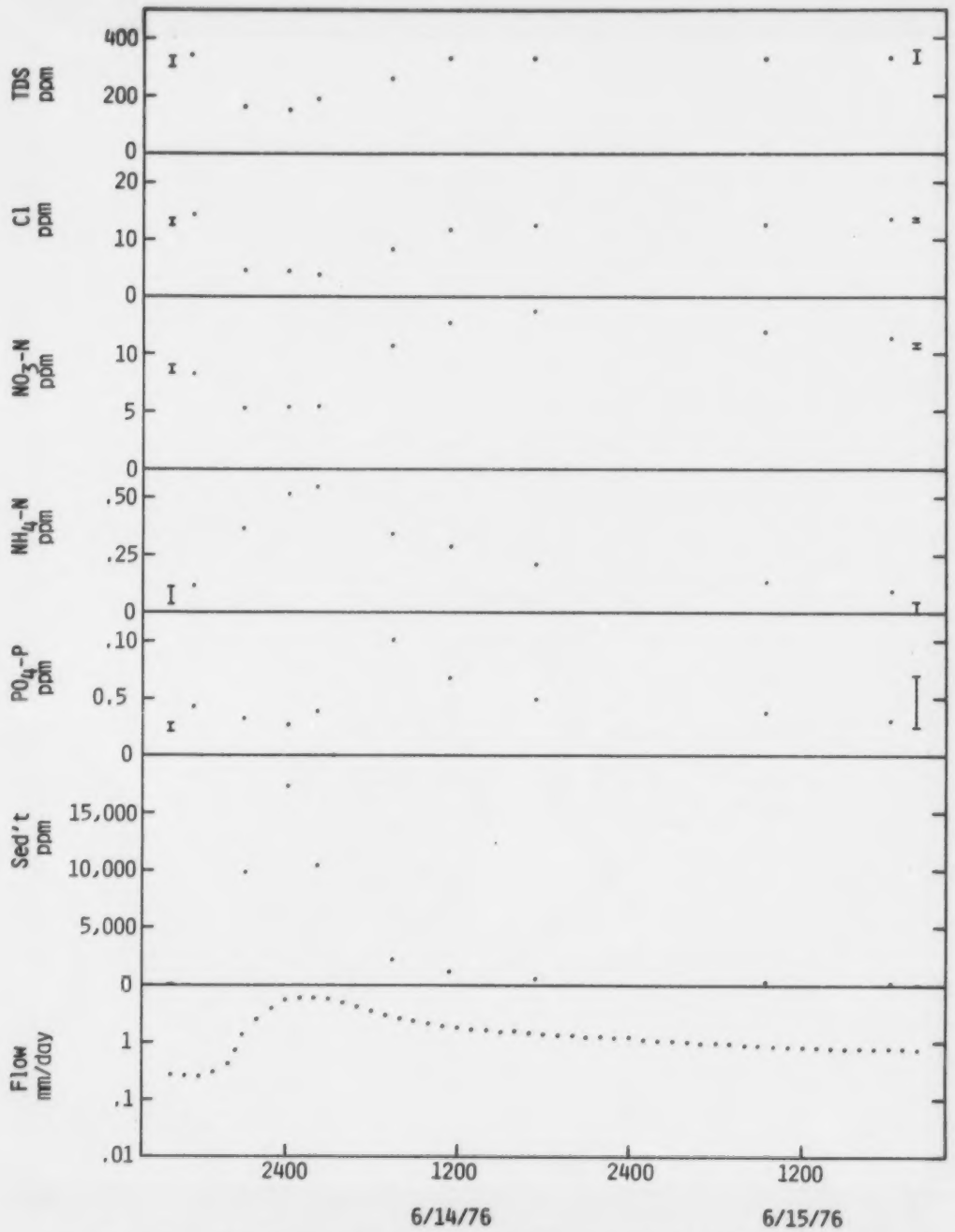


Figure 75. Nutrient and sediment concentrations and creek flow (site 4) for June, 1976 storm.

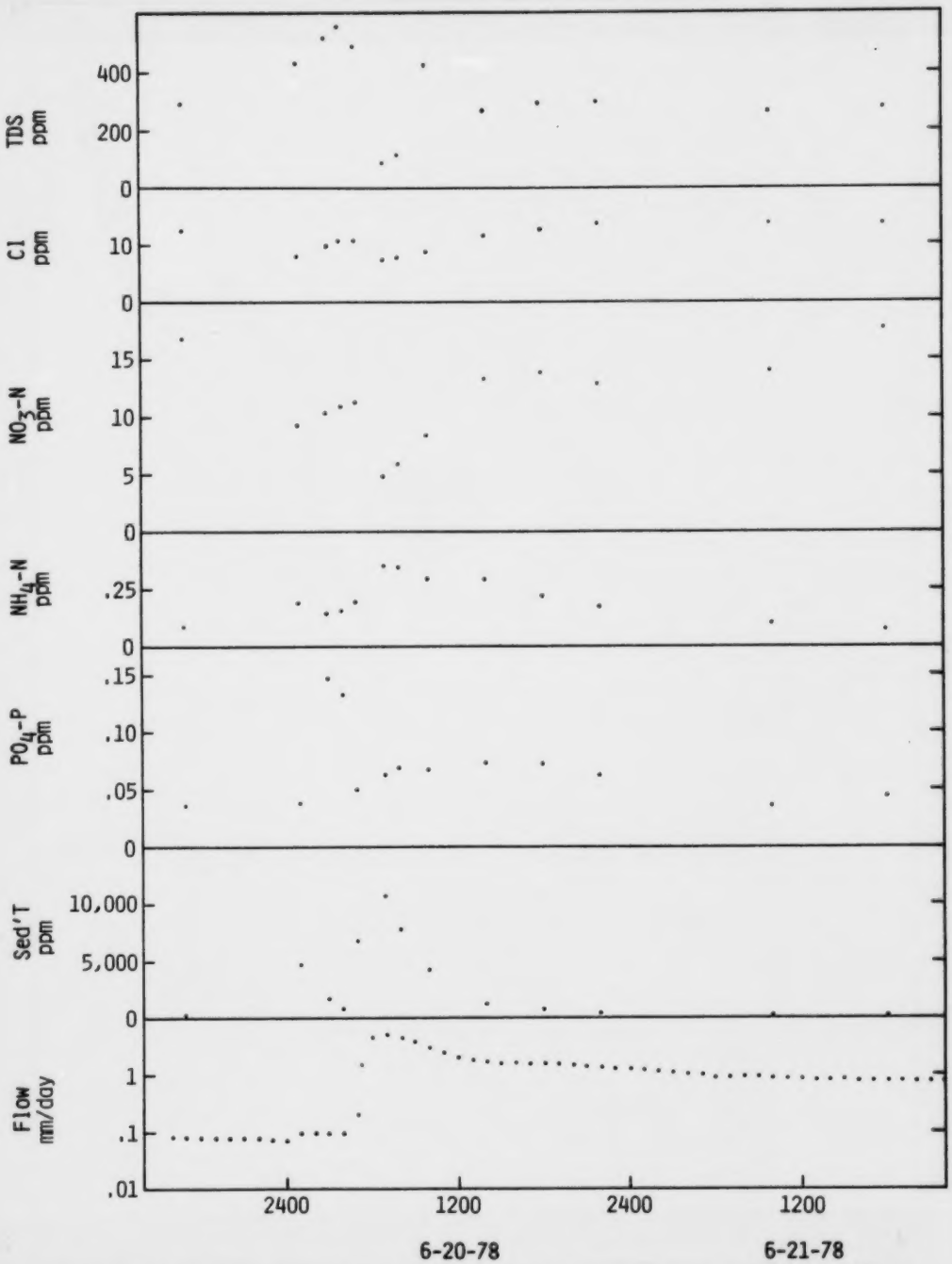


Figure 76. Nutrient and sediment concentrations and creek flow (site 4) for June, 1978 storm.

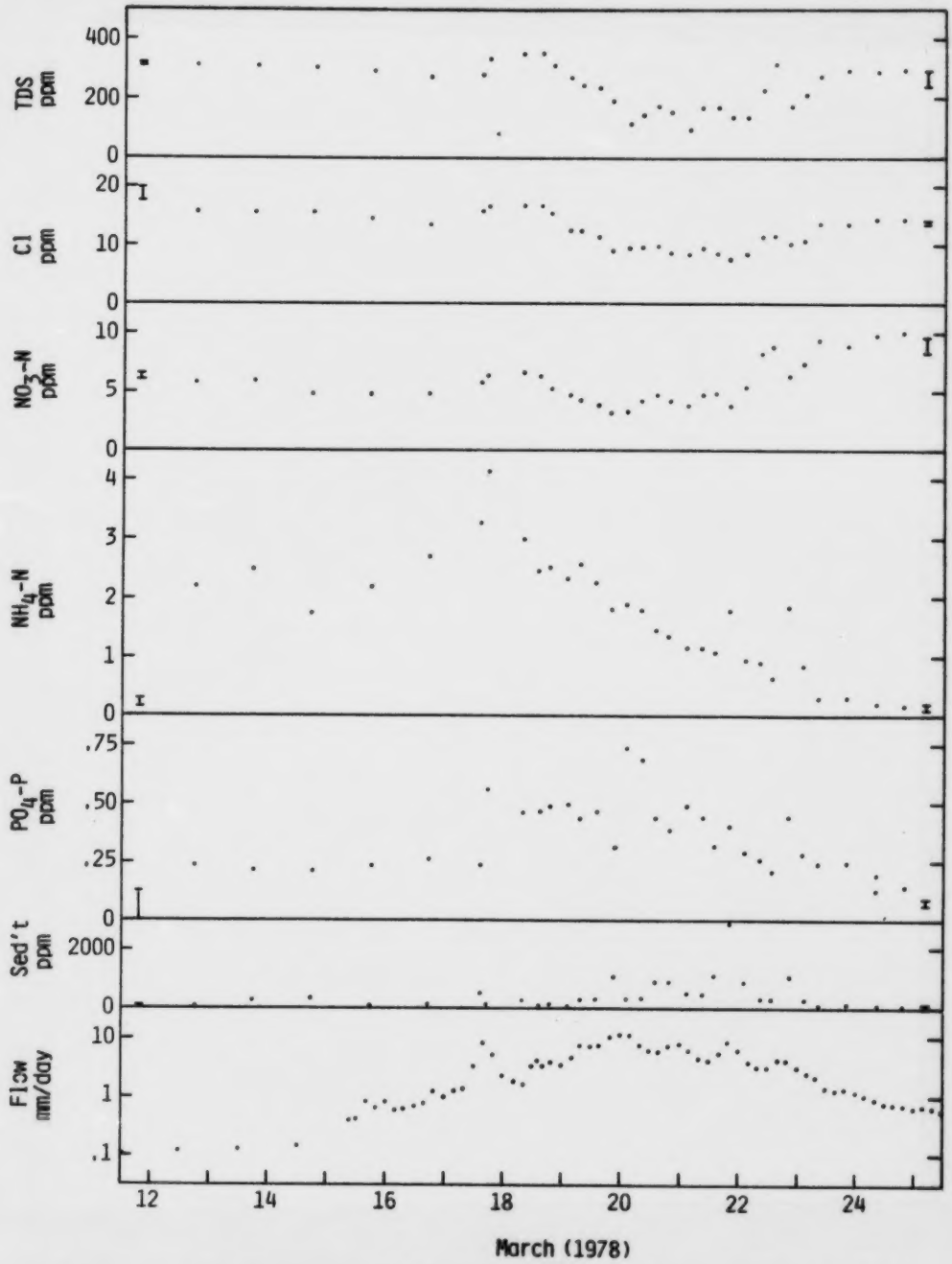


Figure 77. Nutrient and sediment concentrations and creek flow (site 4) for March, 1978 snowmelt.

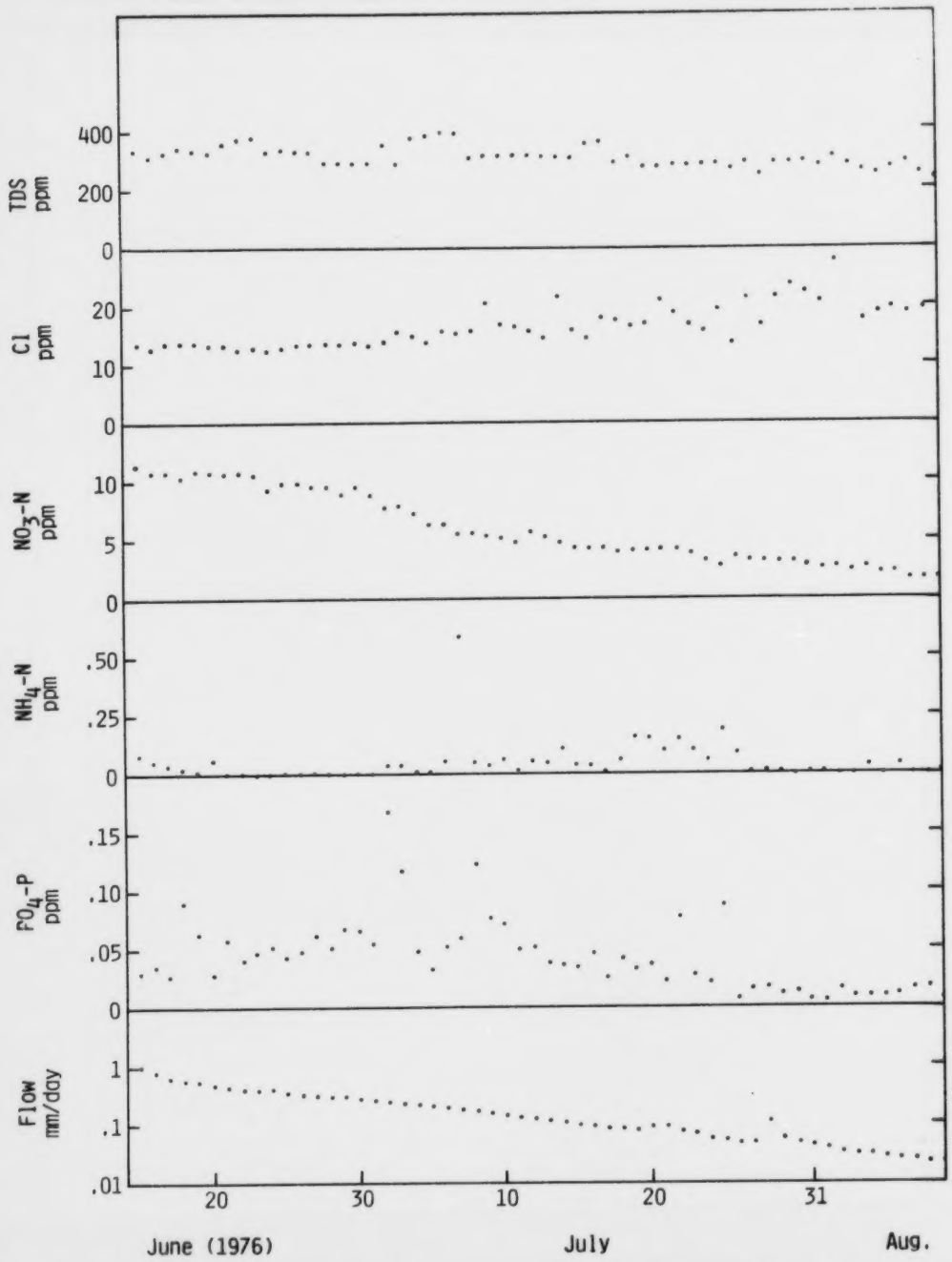


Figure 78. Nutrient concentrations and creek flow (site 4) during summer base flow.

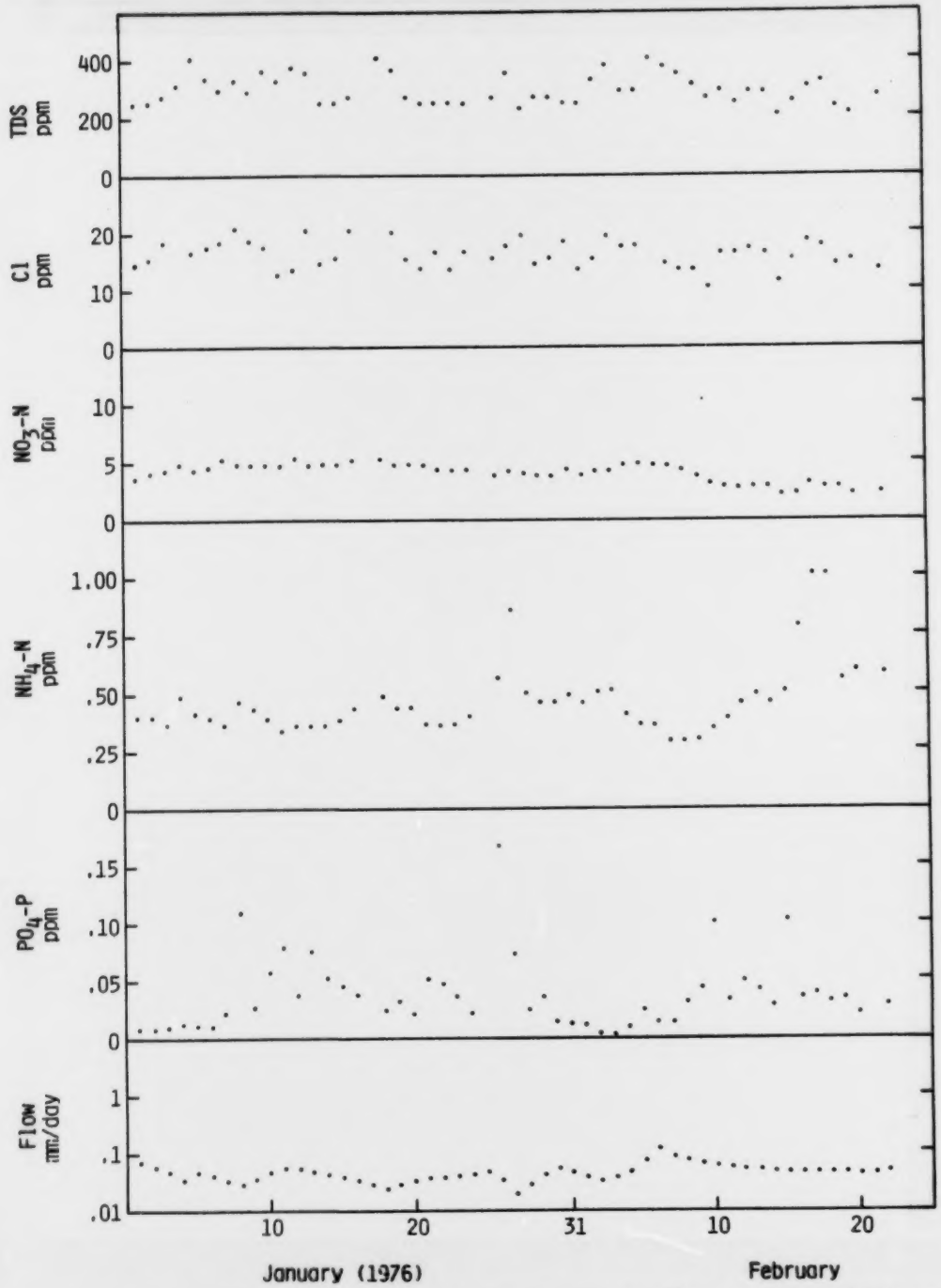


Figure 79. Nutrient concentrations and creek flow (site 4) during winter base flow.

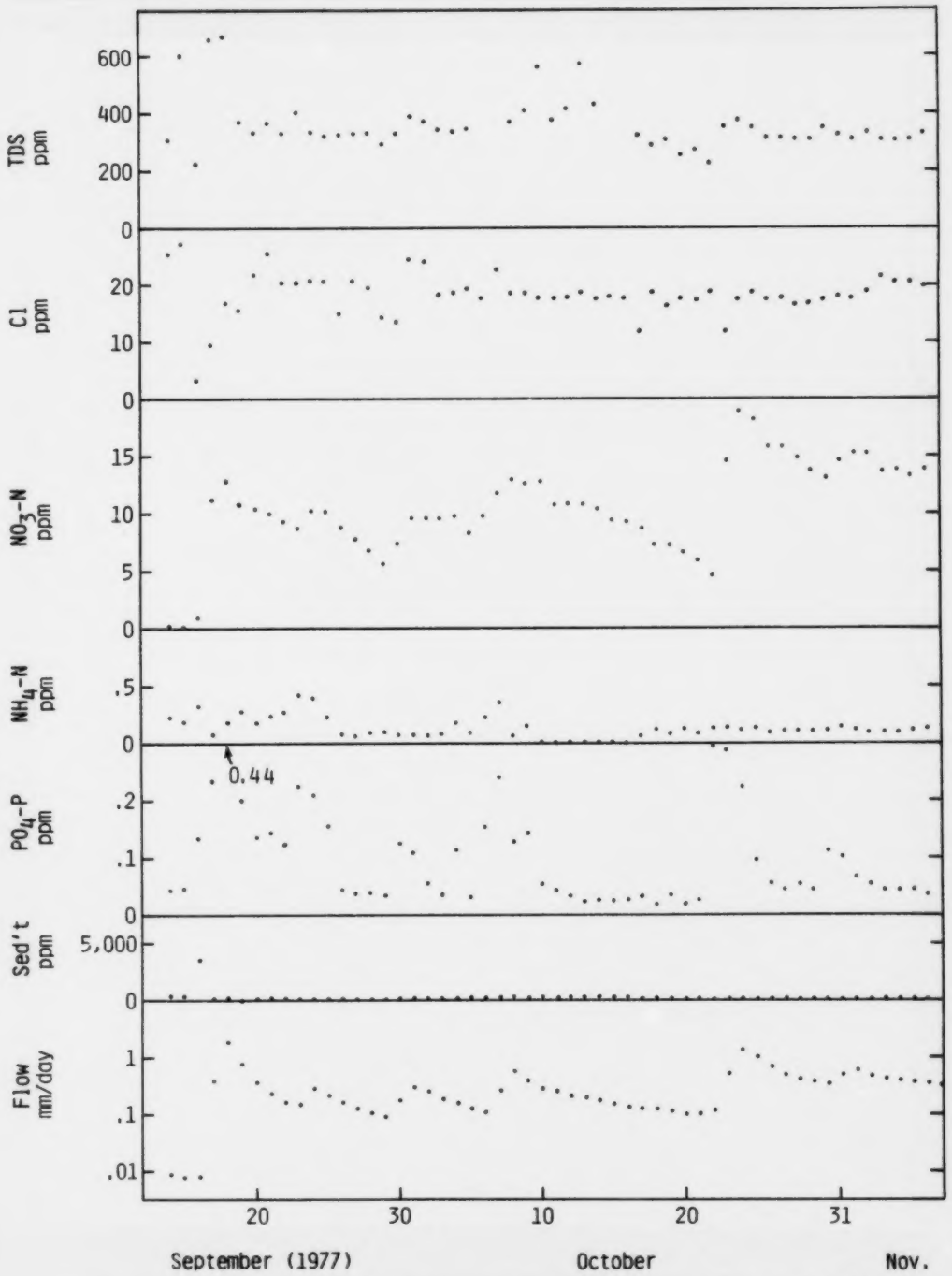


Figure 80. Nutrient and sediment concentrations and creek flow (site 4) for fall, 1977 storms.

Part of the large increase in instream NO_3-N concentrations in October was probably due to an average increase of 6.5 ppm in NO_3-N concentrations in tile flow during the week of October 19-25, during which 52 mm of precipitation fell. The tile lines drain rolling topography (of different degrees) and therefore, depending on soil moisture conditions, drain water from a range of soil depths. This causes variations in NO_3-N concentrations with time, and between the lines. Tile at sampling sites 10 through 12, 18 and 19 drain more rolling land than tile at sites 13 through 17. It is evident in Table 15 that the latter sites, associated with the more level land, on average had higher NO_3-N concentrations for the three years of record.

NO3-N losses from the watershed for the two drier years (9.7 kg/ha in 1976; 4.4 kg/ha in 1977) were not much more than that deposited with precipitation. However, for 1978 with more normal precipitation and stream flow, NO_3-N losses were 21.6 kg/ha, an amount that becomes an economic and energy as well as an environmental concern.

PO_4-P concentrations instream generally exceeded the 10 to 30 ppb believed to be sufficient for the growth of algae. In fact, samples from essentially all the surface runoff and nearly all the subsurface drainage averaged over 30 ppb. In general, surface runoff had a higher PO_4-P concentration (particularly for the pasture site 3) than the flow from tile drains. The arithmetic averages for PO_4-P in tile flow shown in Table 15 are larger, and have a larger standard deviation, as a result of sampling immediately after storm events and during snowmelt. At these times of high PO_4-P concentrations (sometimes in excess of 1 ppm) a portion of the water sampled probably represented surface runoff, as evidenced by the cloudy appearance opposed to clear samples taken at other times.

The high PO_4-P concentrations during 30 mm of snowmelt for March 12 through 25, 1978, shown in Figure 77, were probably the result of animal wastes on the soil surface, lack of complete incorporation of applied phosphorus fertilizers, and decaying vegetation; the same factors believed responsible for the high concentration in runoff from the pasture site 3. The impact of applied phosphorus fertilizer on PO_4-P concentrations in surface runoff was shown for an event occurring within 24 h of application (and incorporation only by disking) of 37 kg/ha of P on site 1. PO_4-P concentrations averaged 1.69 ppm in 4.5 mm of surface runoff from that event; whereas, for the rest of the year PO_4-P concentrations in surface runoff averaged 0.10 ppm.

Figures 78 and 79 show that PO_4-P concentrations in streamflow during base flow conditions averaged about 20 to 30 ppb (with some large deviations possibly due to animal influence). The low levels, particularly during the biologically inactive winter months, are believed the result of PO_4-P extraction from percolating waters by subsoils with low P fertility.

Losses of PO_4-P from the watershed in 1976 (0.08 kg/ha) and 1977 (0.05 kg/ha) were less than that deposited with precipitation. During the more normal year, 1978, PO_4-P loss was 0.21 kg/ha, but was still less than that deposited. The major portions of the 1976 and 1978 losses were associated with snowmelt (there was no snowmelt in 1977).

Cl and total dissolved solids (TDS) are considered together, because concentration trends are quite similar. TDS is of interest relative to the 500 ppm criterion set for public water supplies. Cl is of interest because of the information it can provide relative to sources of water in streamflow and relative to NO_3-N concentrations. The chloride ion, unlike NO_3-N, is considered a conservative ion (i.e., it does not undergo transformations that change the amount present), and because it is very soluble and not adsorbed it moves readily with water.

During surface runoff events, both Cl and TDS concentrations instream tended to decrease because of dilution of the base and tile flow with surface runoff containing less Cl and TDS (Figures 75 and 76). During base flow in summer (Figure 78) and winter (Figure 79), Cl concentrations ranged from about 15 to 30 ppm, and TDS averaged about 300 ppm. These are similar to the average values for Cl and TDS found in samples from the ten tile sites. During the very dry period in 1977 both Cl and TDS concentrations in the stream and in some tile flows averaged about 25 to 50% higher than in either 1976 or 1978, possibly the result of the drought.

The amounts of Cl and TDS lost from the watershed over the three year period were very nearly equal to the amounts deposited with precipitation. About one-seventh of the precipitation was removed as stream flow at Cl and TDS concentrations about 7 to 10 times higher than those for precipitation.

Data for kjeldahl-N and total-P in sediment samples from sites 1 and 2 (Table 14) show that, in general, nutrient concentrations in sediment of runoff samples decreased with increasing sediment concentrations. These data were fit with an equation of the form:

$$\text{nutr conc} = A - B(\text{sedt conc}) + C^{-D(\text{sedt conc})} \qquad [9]$$

where A, B, C and D are empirical constants. The curves for kjeldahl-N (constants: 2310, 0.0191, 1551, and 0.000330) and total-P (constants: 1094, 0.0044, 591, and 0.000261) are shown in Figure 81, with r^2 values of 0.72 and 0.62, respectively. Data for kjeldahl-N and total-P in sediment samples from site 4 were not correlated with sediment concentrations, and averaged 2749 and 1375 ppm, respectively. These values are in the upper ranges of the curves shown in Figure 81. See Appendix F for all nutrient data.

PESTICIDES

Table 1 gives the names, water solubilities, and vapor pressures of the herbicides studied. All but atrazine were applied to sites 1 and 2. Initially, cyanazine, metribuzin, and propachlor were applied as wettable powders (80, 50 and 65%, respectively). In 1978 the five herbicides applied to sites 1 and 2 were applied as emulsifiable liquids (4 L, with the exception of paraquat, 2 L). Application was made with a pull-type broadcast sprayer, with about 187 L/ha water, 7.2 km/h travel speed, and 275 kPa pressure. Table 16 gives the results of spray and filter paper analyses in the determination of the amounts applied. The intended rates of application were 2.24 kg/ha for alachlor, propachlor and cyanazine, 1.12 kg/ha for paraquat, and 0.56 kg/ha

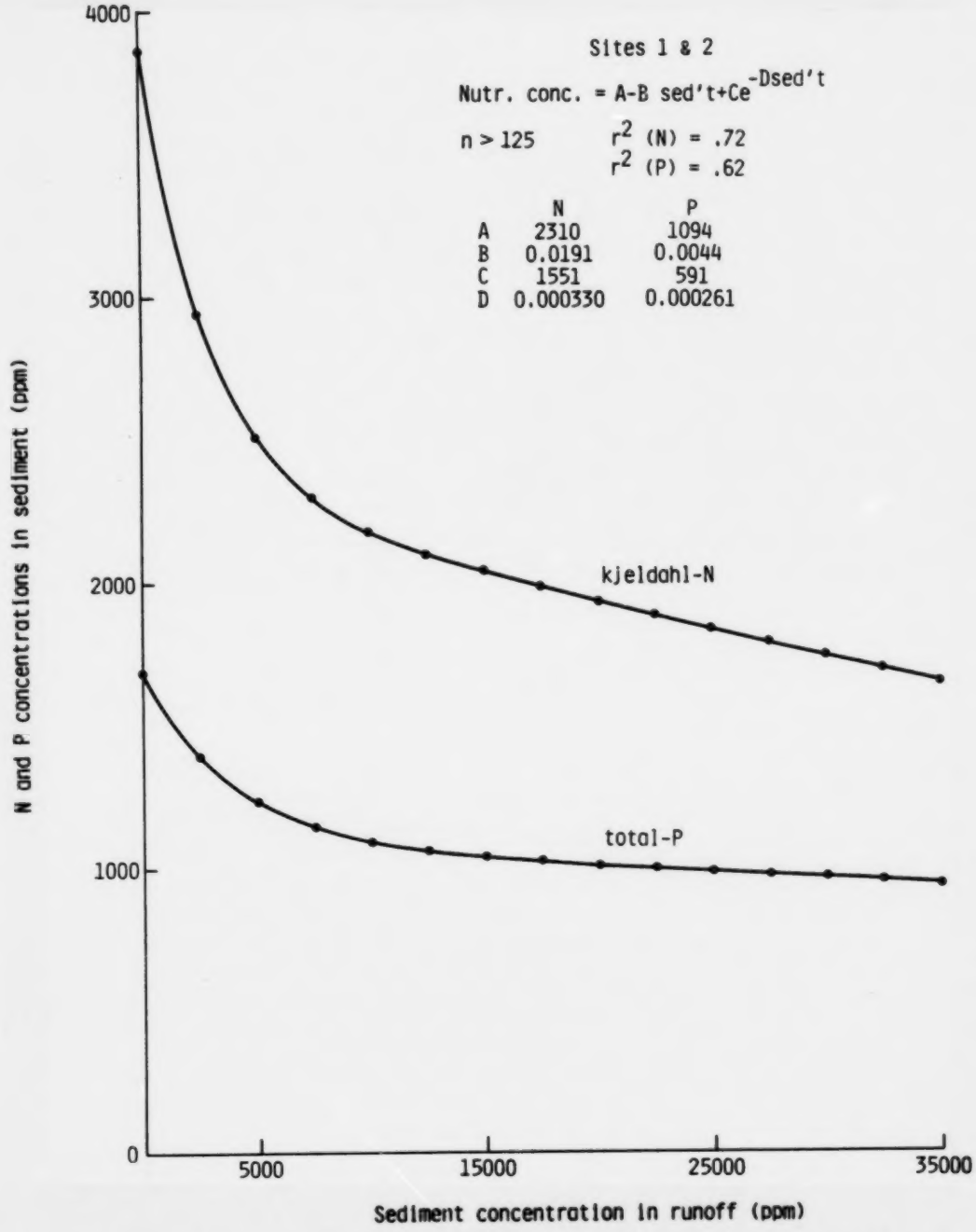


Figure 81. Nutrient concentrations in suspended sediment as predicted from sediment concentrations.

TABLE 16. HERBICIDES APPLIED TO CORN AND SOYBEANS (SITES 1 AND 2)

Year		Soybeans			Corn		
		Alachlor	Metribuzin	Paraquat	Propachlor	Cyanazine	Paraquat
		kg/ha			kg/ha		
1976*	Spray†	2.39	0.64	1.56	2.24	1.82	1.21
	Paper§	2.41 (.29)	0.57 (.07)	1.56 (.05)	2.23 (.09)	2.22 (.06)	1.34 (.13)
	Soil∞	1.82 (.47)	0.14 (.05)	1.25 (.20)	1.12 (.26)	1.44 (.26)	0.88 (.23)
1977	Spray	2.26	0.63	1.44	2.46	3.05	1.59
	Paper	2.24 (.09)	0.57 (.02)	1.59 (.07)	1.94 (.22)	4.13 (.13)	1.63 (.12)
	Soil	2.57 (.53)	0.24 (.08)	--	1.79 (.33)	4.20 (.97)	--
1978	Spray	1.93	0.65	1.61	2.42	2.91	1.61
	Paper	1.85 (.09)	0.45 (.13)	1.36 (.05)	2.29 (.23)	2.46 (.53)	1.53 (.10)
	Soil	1.55 (.54)	0.20 (.19)	--	1.49 (.39)	2.18 (.66)	--

*In 1976 site 1 was planted to soybeans, site 2 to corn; the crops were rotated each year.

†Values for spray calculated from concentration of spray, spray rate and tractor speed.

§Values for paper calculated from amounts of herbicides collected on filter paper discs (12.5 cm diameter); values in parentheses are standard deviations of three determinations.

∞Values for soil are averages of twelve soil samples (with standard deviation) calculated from weight of sample and cross sectional area of sampler (423 cm^2).

for metribuzin (a calculation error in 1978 for cyanazine meant the intended rate was 2.80 kg/ha).

Care was taken that application be made during as still a period as possible and, as shown in Table 16, there were no consistent differences between what was measured at the spray nozzle and what reached the filter paper on the soil surface, indicating no measurable losses were occurring during application. The application rates used in all subsequent calculations were an average of the spray and filter paper results; these averages (Table 17) are in general slightly higher than the intended rates of application. The application rates for the watershed as a whole (5055 ha) are also given in Table 17, and are taken from watershed inventory data. Alachlor was the most widely used pesticide, with 4924 kg applied in 1978.

Table 16 and Figures 82 through 87 show the results of soil sampling. The coefficient of variation for the soil samples the day of application (mean divided by the standard deviation in Table 16) was always greater, usually by a factor of two or more, than for the filter paper determinations. For this reason the soil data were not included in calculating the actual herbicide application rate. The large standard deviations shown in Figures 82 through 87 are not uncommon in field measurements where sampling error due to non-homogeneity can be large.

The soil sampling data (Figure 82 and 83) show a build up of paraquat in the soil with three years of successive applications of about 1.5 kg/ha-yr. By August 1978 about two-thirds of that applied still remained in the soil. The data from volume soil samples taken in 1976 are included in the plots; however, subsequent tillage in the springs of 1977 and 1978 incorporated the paraquat to depths greater than that sampled by the volume sampler (~5-6 cm). Background soil samples in 1977 (taken before herbicides were applied that year) showed that there was paraquat in both the 0-1 and 1-7.5 cm layers on site 1, which had been disked. For site 2, which had been plowed, paraquat was only found in the 7.5-15 cm layer, which would be expected with the turnover of the surface soil. In 1978 paraquat was found in all four layers (0-1, 1-7.5, 7.5-15, 15-30 cm); however, most of it was confined to the three uppermost layers.

With respect to possible leaching, essentially none of the herbicides studied moved below 15 cm (only two of about 150 core samples analyzed had herbicides in the 15-30 cm layer; one had alachlor at 0.02 ppm, one had cyanazine at 0.02 ppm). Paraquat was an exception in 1977 and 1978, but its movement was related to mechanical tillage. Very little of the herbicides even moved below 7.5 cm, with only seven of about 150 7.5-15 cm samples found to have any herbicide in them, at levels of 0.02 to 0.86 ppm. In all cases (again with the exception of paraquat) the maximum herbicide concentration in each core was found in the 0-1 cm layer.

The soil sampling data for alachlor, metribuzin, propachlor and cyanazine (Figures 84 through 87) show that by some time in August the levels of these herbicides had decreased to zero (or at least below the detection limit). The rate of disappearance of these four herbicides was greatest for propachlor and least for cyanazine. The greatest discrepancy between what was applied

TABLE 17. HERBICIDE APPLICATION RATES FOR SITES 1 AND 2 AND FOR FOUR MILE CREEK WATERSHED AS A WHOLE (SITE 4)

Year	Site	Application rate (kg/ha)					
		alachlor	metribuzin	propachlor	cyanazine	atrazine	paraquat*
1976	Sites 1 & 2†	2.40	0.60	2.24	2.02	0.0	1.42
	4 mi wshd.§	.806	.048	.055	.097	.631	.003
1977	Sites 1 & 2	2.25	0.60	2.20	3.59	0.0	1.56
	4 mi wshd.	.849	.049	.090	.066	.425	.003
1978	Sites 1 & 2	1.89	0.55	2.36	2.68	0.0	1.53
	4 mi wshd.	.974	.075	.069	.206	.360	.003

*Average of values for sites 1 and 2 for paraquat.

†Values for sites 1 and 2 from spray and filter paper analyses.

§Values for Four Mile Creek watershed from inventory data and total area of 5055 ha.

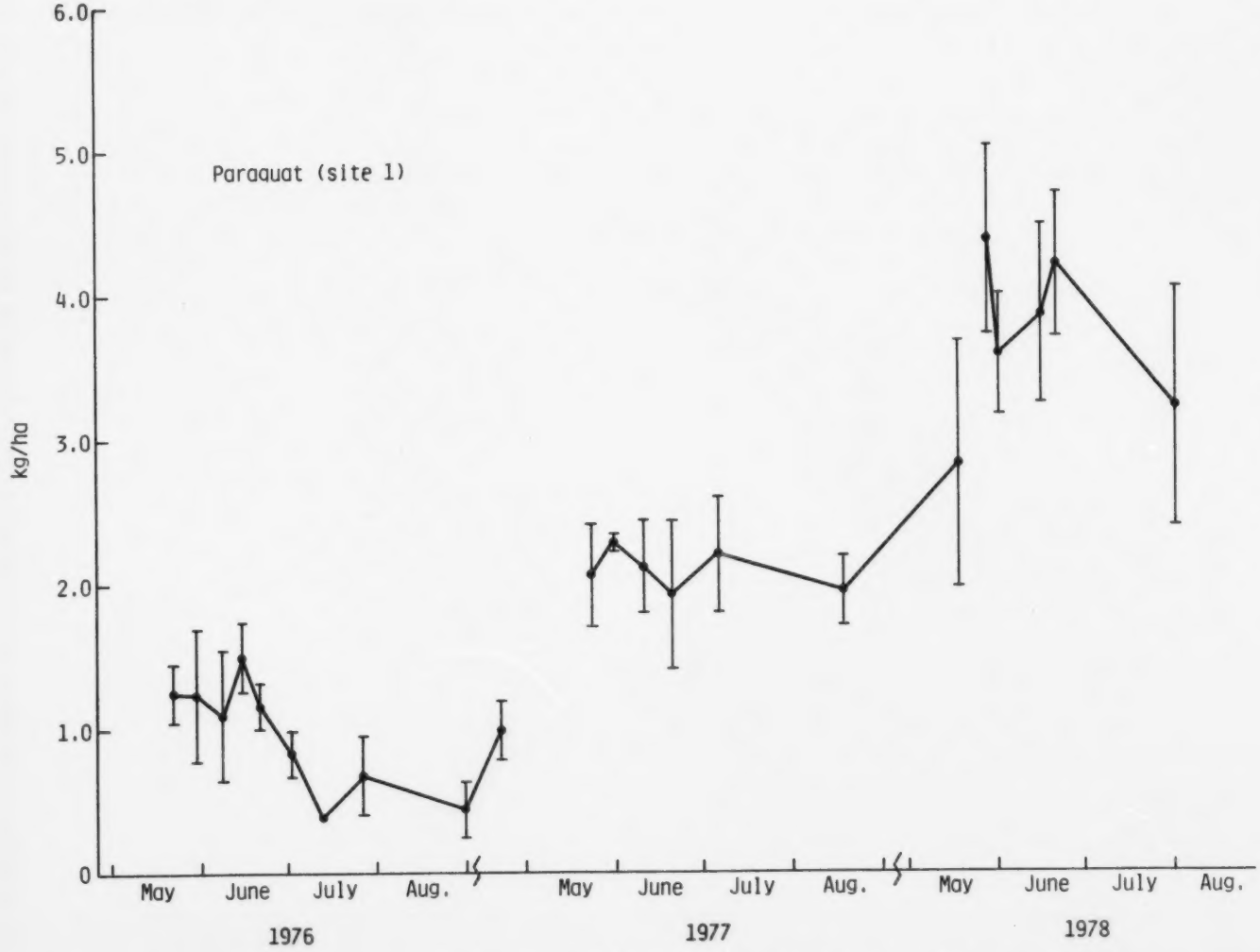


Figure 82. Paraquat amounts in the soil profile of site 1 as a function of time.

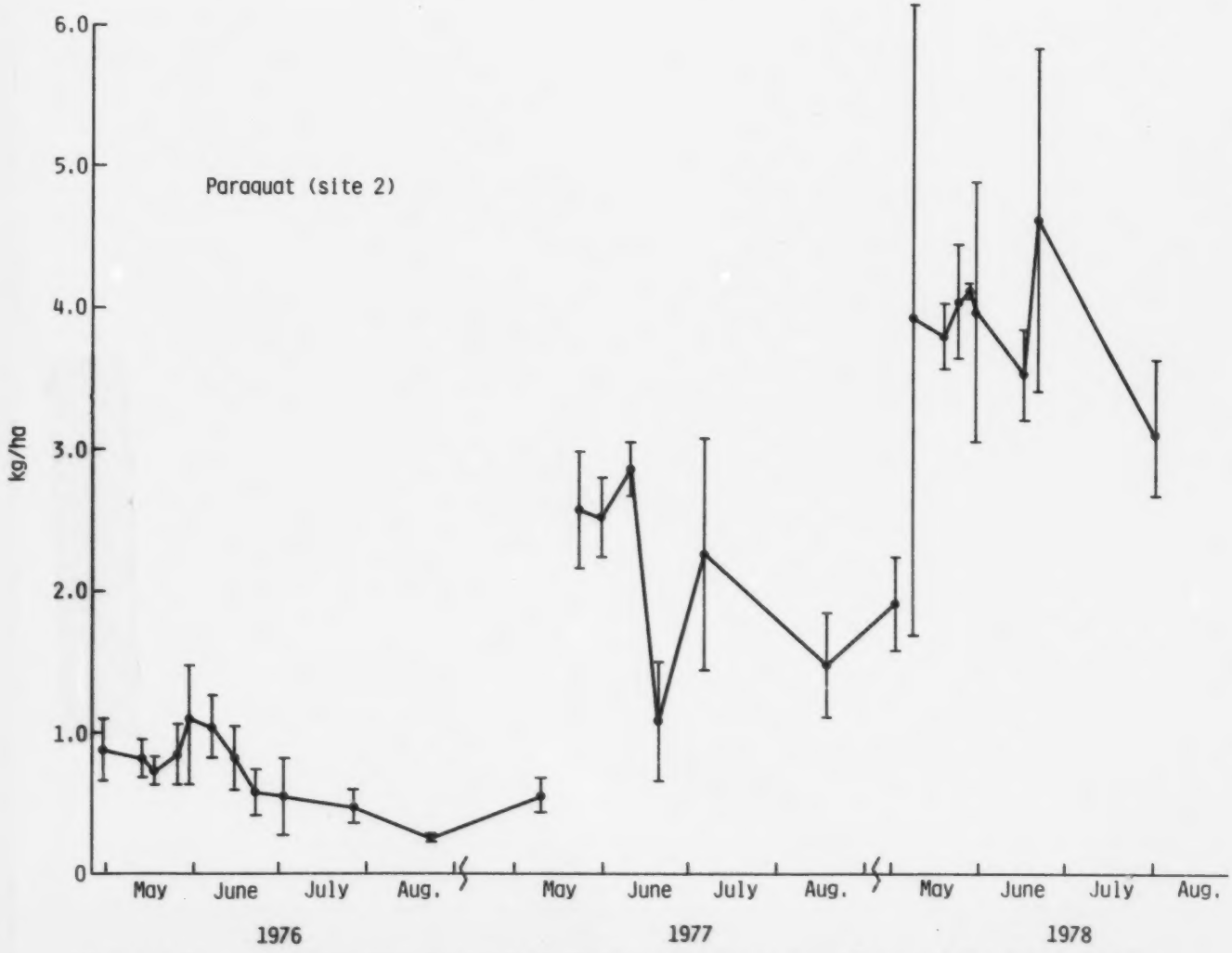


Figure 83. Paraquat amounts in the soil profile of site 2 as a function of time.

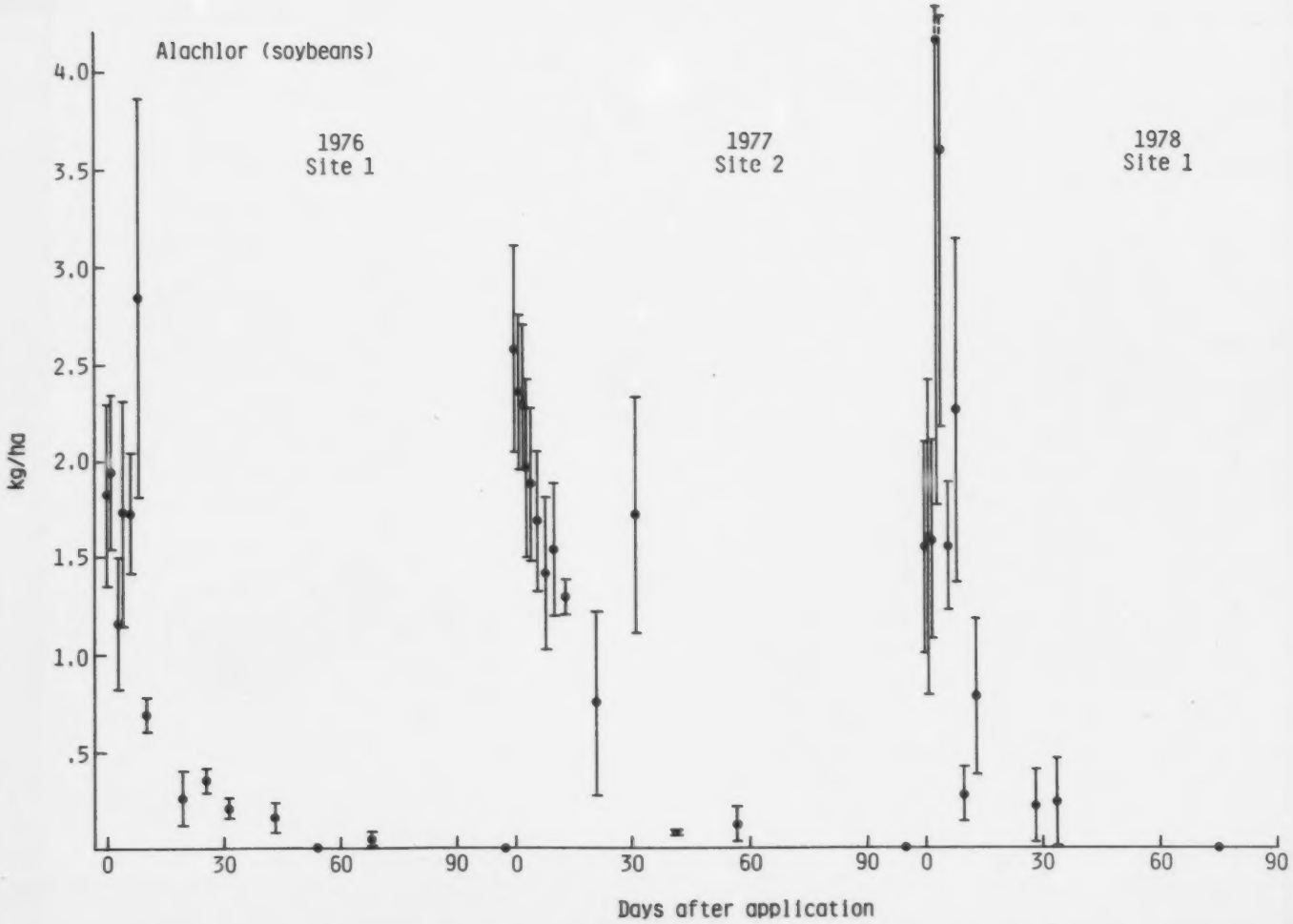


Figure 84. Alachlor amounts in the soil profile as a function of time.

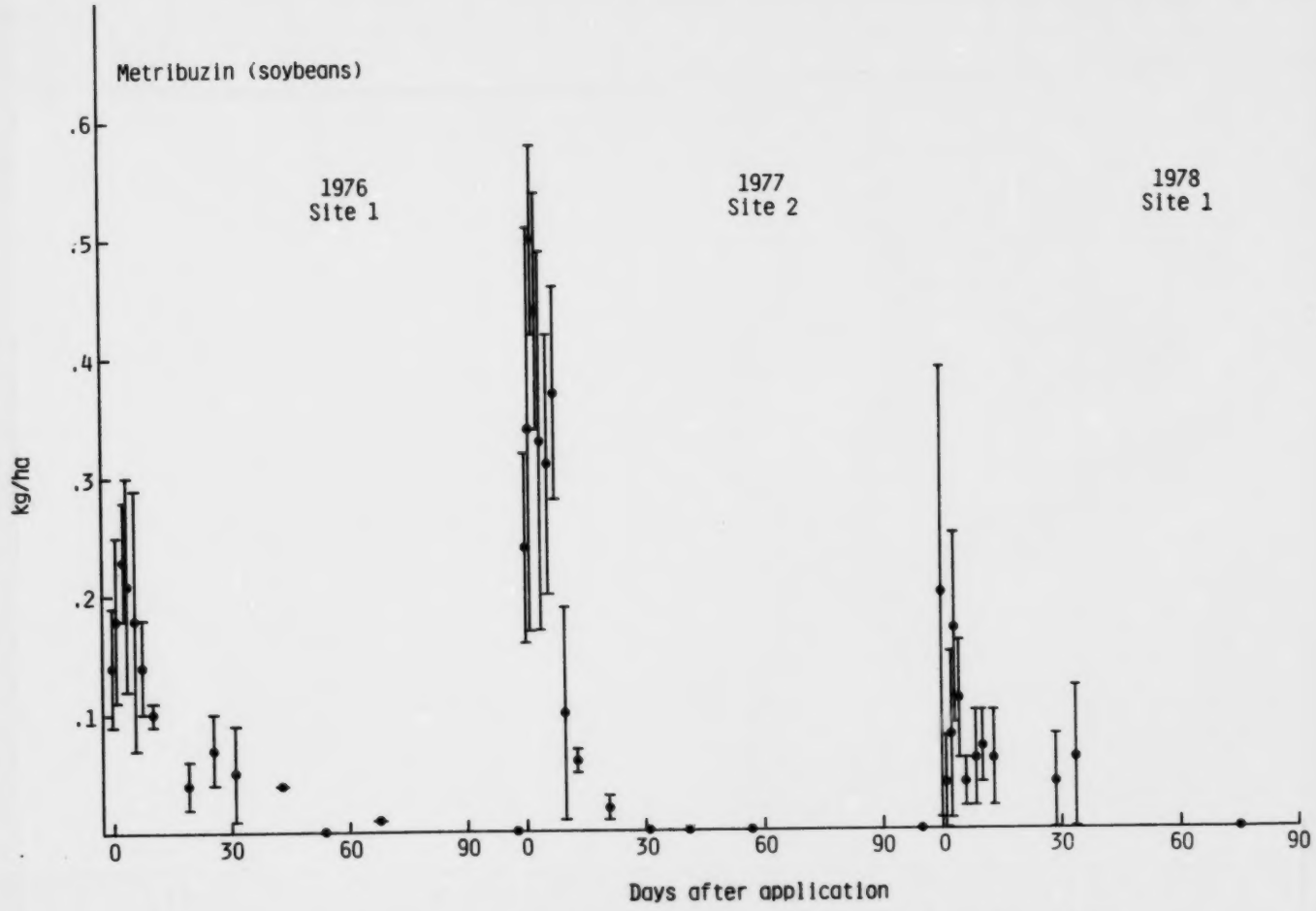


Figure 85. Metribuzin amounts in the soil profile as a function of time.

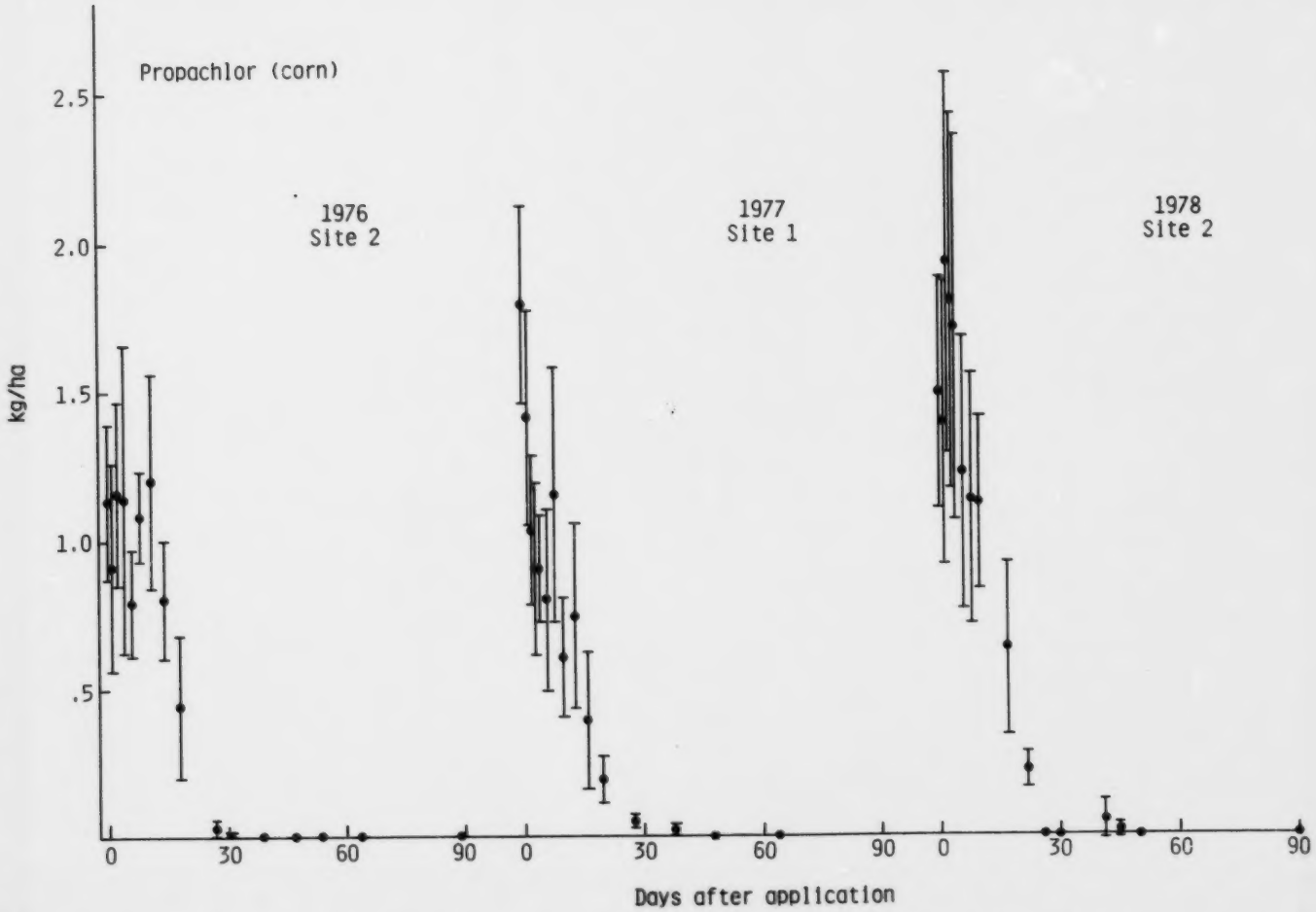


Figure 86. Propachlor amounts in the soil profile as a function of time.

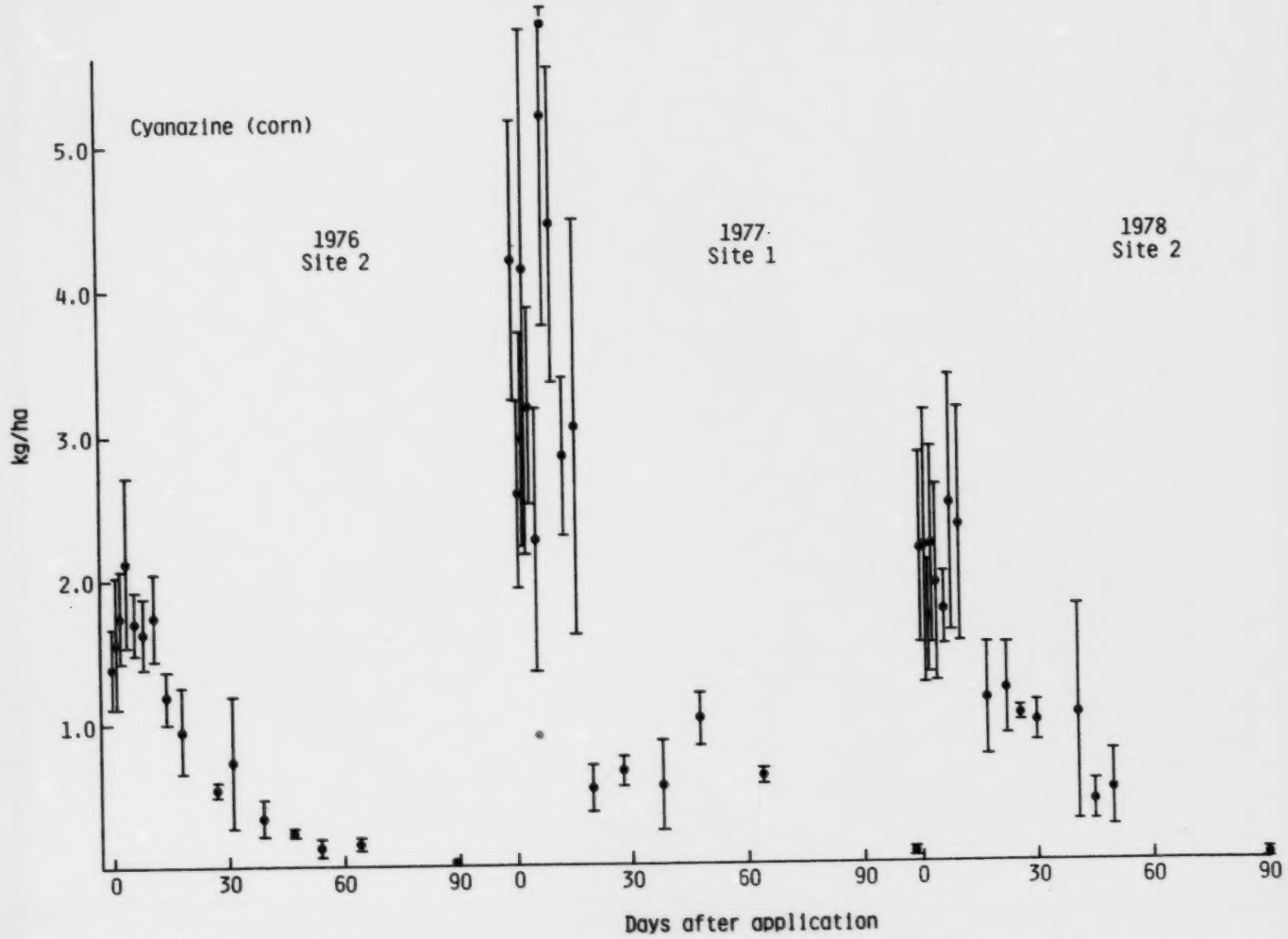


Figure 87. Cyanazine amounts in the soil profile as a function of time.

(based on spray and filter paper analyses) and what was found in the soil occurred for metribuzin, where soil analyses right after application indicated a large percentage loss of herbicide. If this loss is real, it could be the result of several occurrences related to physical, chemical and biological processes such as volatilization, irreversible adsorption, or degradation. There is no reason to believe that these processes are unique to metribuzin; it may be that they appear more pronounced because only about one-fourth as much metribuzin was applied compared to alachlor, propachlor and cyanazine.

Table 18 presents the amounts of pesticides lost from sites 1 and 2 and from the Four Mile Creek watershed for seven runoff events, as a percentage of what was applied (application rates given in Table 17). For no year did the amount of any of the four herbicides, alachlor, metribuzin, propachlor and cyanazine, used on sites 1 and 2, exceed 1% of that applied. Average losses of the herbicide paraquat from sites 1 and 2 exceeded 1.5% in both 1976 and 1978 because of severe erosion and little degradation of the herbicide.

In general, percentage losses from the watershed as a whole were a fraction of those from sites 1 and 2, and did not exceed 1% for any of the herbicides studied. Creek samples of the 5/27/78 and 5/31/78 storm events were not taken due to the localized nature of the storms. The possibilty of attenuation between field border and stream could result from sediment deposition, and interaction of pesticides in overland flow with surfaces of stationary or depositing material.

Table 19 shows the percentages of measured total losses that occurred in solution with the water phase of flow. For paraquat, a very soluble but strongly adsorbed herbicide, no losses occurred with water; all the losses were with sediment. However, for the other four herbicides studied on sites 1 and 2, plus atrazine on the whole watershed, from 78 to 100% of the losses occurred with water. Therefore, sediment control alone will not prevent losses of these herbicides. Overall, there were no obvious consistent differences between how the losses occurred from sites 1 and 2 and from site 4, the whole watershed.

Table 20 gives the flow-weighted average concentration in sediment and water for the seven runoff events. It is obvious that average concentration decreased with time through a growing season. The effect of tillage was also important; for instance, concentrations of paraquat in sediment from site 2 averaged 17.2 ppm for the storm on 5/29/76. On 6/7/76, the field was cultivated followed by another storm on 6/13/76. For this storm, paraquat concentrations in sediment averaged only 4.7 ppm. The concentration trend over short time intervals (within one runoff event) was one of possibly decreasing concentrations in water with time. However, for some storms, and for concentrations of herbicides in sediment, there were no obvious concentration trends.

Also given in Table 20 are the herbicide concentrations in the top 1 cm soil layer after each storm event. In the case of the sediment carried herbicide, paraquat, the surface soil had lower concentrations than the sediment.

TABLE 18. PERCENTAGES OF APPLIED HERBICIDES LOST FROM SITE 1 AND 2 AND FROM FOUR MILE CREEK WATERSHED (SITE 4) DURING STORM EVENTS

Date	Site	Percentage lost					
		alachlor	metribuzin	propachlor	cyanazine	atrazine*	paraquat†
5/29/76	Sites 1 & 2	.257	.474	.216	.932	--	2.972
	4 mi wshd.	.058	.046	.127	.022	.090	1.000
6/13/76	Sites 1 & 2	.223	.246	.001	.023	--	.317
	4 mi wshd.	.042	.009	.0	.050	.076	.0
8/15/77	Sites 1 & 2	<.001	<.001	.0	.005	--	.162
	4 mi wshd.	.0	.0	.0	.0	.001	.0
5/27/78	Sites 1 & 2	.161	.376	.247	.677	--	1.363
	4 mi wshd.§	--	--	--	--	--	--
5/31/78	Sites 1 & 2	.024	.026	.007	.059	--	.088
	4 mi wshd.§	--	--	--	--	--	--
6/15/78	Sites 1 & 2	.021	.003	.0	.040	--	.116
	4 mi wshd.	.022	.0	.023	.019	.170	.114
6/20/78	Sites 1 & 2	.063	.044	.0	.040	--	.148
	4 mi wshd.	.029	.040	.084	.015	.089	.0

*No atrazine applied to sites 1 and 2.

†Paraquat runoff data averaged for sites 1 and 2 and based on what was applied that year; creek values other than zero are a result of detection of paraquat in only two of all the samples taken.

§No samples available due to localized rainfall.

TABLE 19. PERCENTAGES OF MEASURED LOSSES FROM SITES 1 AND 2 AND FROM FOUR MILE CREEK WATERSHED (SITE 4) DURING STORM EVENTS THAT OCCURRED WITH WATER

Date	Site	Percentage lost with water					
		alachlor	metribuzin	propachlor	cyanazine	atrazine*	paraquat
5/29/76	Sites 1 & 2	100	100	93	90	--	0
	4 mi wshd.	96	100	100	82	94	0
6/13/76	Sites 1 & 2	97	100	100	96	--	0
	4 mi wshd	91	100	--†	78	92	--
8/15/77	Sites 1 & 2	58§	--	100§	80	--	0
	4 mi wshd.	--	--	--	--	100	--
5/27/78	Sites 1 & 2	95	99	95	85	--	0
	4 mi wshd.∞	--	--	--	--	--	--
5/31/78	Sites 1 & 2	97	99	100	86	--	0
	4 mi wshd.∞	--	--	--	--	--	--
6/15/78	Sites 1 & 2	99	100	--	90	--	0
	4 mi wshd.	99	--	100	96	96	0
6/20/78	Sites 1 & 2	98	99	--	93	--	0
	4 mi wshd.	100	100	100	98	95	--

*No atrazine was applied to sites 1 and 2.

†No losses were measured.

§Losses were very low (less than 0.001% of that applied).

∞No samples available due to localized rainfall.

TABLE 20. HERBICIDE CONCENTRATIONS IN WATER AND SEDIMENT (LOAD-WEIGHTED), AND IN SOIL (0-1 cm) AT TIMES OF STORM EVENTS

Date	Herbicide concentrations							
	water	sediment ppb	soil	water	sediment ppb	soil	sediment ppb	soil
		alachlor			metribuzin		paraquat	
5/29/76	159	0	5280	73	0	530	6879	6280
6/13/76	63	184	2050	18	0	180	9234	7310
8/15/77	<1	8	0	<1	0	0	5535	2370
5/27/78	243	480	1950	172	47	450	10921	7880
5/31/78	198	336	5420	64	21	360	9086	7370
6/15/78	45	65	1540	2	0	250	11170	8530
6/20/78	33	80	1040	7	9	230	9937	8120
		propachlor			cyanazine		paraquat	
5/29/76	40	82	30	150	490	3520	17213	5680
6/13/76	1	0	0	37	360	830	4689	2220
8/15/77	0	0	0	3	46	220	5535	4780
5/13/78	736	1282	4710	152	2308	7720	52821	16970
5/27/78	54	177	0	151	1517	3840	21707	11020
5/31/78	24	0	0	187	1567	3740	17059	9400
6/15/78	0	0	110	40	661	1270	16452	9340
6/20/78	0	0	0	53	792	1640	16800	9290

For the water transported herbicides the sediment had lower herbicide concentrations than the soil in place.

See Appendix G for all pesticide data.

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APPENDIX A

CROP AND LIVESTOCK INVENTORY OF FOUR MILE CREEK WATERSHED

TABLE A1-1. ROW CROPS GROWN AND PESTICIDES USED IN FOUR MILE CREEK WATERSHED IN 1970 AND 1976-1978

Crop	Year	Watershed area %	Crop area fertilized %	Average fertilizer application N	P_2O_5 kg/ha	K_2O	Crop area pesticide treated herbicides %	insecticides %
Corn	1970	39	88	123	71	64	71	54
	1976	55	98	158	55	52	99	58
	1977	54	97	166	62	65	98	80
	1978	55	97	174	57	59	98	80
Soybeans	1970	16	4	17	76	77	75	
	1976	20	11	8	49	51	94	
	1977	24	23	7	58	83	95	
	1978	22	14	16	55	63	97	

TABLE A1-2. CROPS GROWN AND FERTILIZER APPLIED IN FOUR MILE CREEK WATERSHED (SITE 4)

Crop	Year	Total area ha	Fertilized area ha	Total N applied kg	Avg. N applied to fertilized area kg/ha	Total P_2O_5 applied kg	Avg. P_2O_5 applied to fertilized area kg/ha	Total K_2O applied kg	Avg. K_2O applied to fertilized area kg/ha
Corn	1976	2792	2735	432000	158	150300	55	143100	52
	1977	2734	2657	442000	166	164700	62	173400	65
	1978	2799	2707	470600	174	154600	57	161000	59
Soybeans	1976	1004	114	850	8	5545	49	5810	51
	1977	1205	283	1948	7	16290	58	23150	83
	1978	1103	157	2576	16	8600	55	9879	63
Oats	1976	244	28	1977	71	1274	46	1274	46
	1977	170	19	0	0	1066	56	1520	80
	1978	139	19	939	49	830	44	1447	76
Hay	1976	180	22	0	0	1501	68	1492	68
	1977	178	34	449	13	1719	51	2758	81
	1978	172	26	0	0	1288	50	1415	54
Pasture	1976	415	57	6837	120	734	13	489	9
	1977	357	25	1633	65	776	31	640	26
	1978	278	24	1619	67	885	37	748	31
Grass*	1976	0	0						
	1977	0	0						
	1978	148	8	0	0	272	34	363	45
Other†	1976	420							
	1977	411							
	1978	416							
Total	1976	5055	2956	441700		159400		152200	
	1977	5055	3018	446000		184600		201500	
	1978	5055	2941	475700		166500		174900	

*Government set-aside.

†Includes roads, farmyards, timber and waterways.

TABLE A1-3. CROPS GROWN AND FERTILIZER APPLIED - SITE 5

Crop	Year	Total area ha	Fertilized area ha	Total N applied kg	Avg. N applied to fertilized area kg/ha	Total P_2O_5 applied kg	Avg. P_2O_5 applied to fertilized area kg/ha	Total K_2O applied kg	Avg. K_2O applied to fertilized area kg/ha
Corn	1976	2130	2103	350200	166	125100	59	119300	57
	1977	2076	2035	354300	174	134200	66	147100	72
	1978	2081	2058	373400	182	122300	59	131000	64
Soybeans	1976	791	75	415	6	3885	52	4023	54
	1977	979	275	1948	7	16290	59	23150	84
	1978	916	155	2210	14	8460	55	9740	63
Oats	1976	172	26	1905	73	1220	47	1220	47
	1977	104	19	0	0	1066	56	1520	80
	1978	73	19	939	49	830	44	1447	76
Hay	1976	110	15	0	0	1175	78	839	56
	1977	85	34	449	13	1719	51	2758	81
	1978	74	26	0	0	1290	50	1420	55
Pasture	1976	168	57	6838	120	735	13	490	9
	1977	114	0						
	1978	78	14	823	59	612	44	612	44
Grass*	1976	0							
	1977	0							
	1978	102	8	0	0	272	34	363	45
Other†	1976	204							
	1977	217							
	1978	251							
Total	1976	3575	2276	359400		132100		125900	
	1977	3575	2363	356700		153300		174500	
	1978	3575	2270	377400		133800		144600	

*Government set-aside.

†Includes roads, farmyards, timber and waterways.

TABLE A1-4. CROPS GROWN AND FERTILIZER APPLIED - SITE 6

Crop	Year	Total area ha	Fertilized area ha	Total N applied kg	Avg. N applied to fertilized area kg/ha	Total P_2O_5 applied kg	Avg. P_2O_5 applied to fertilized area kg/ha	Total K_2O applied kg	Avg. K_2O applied to fertilized area kg/ha
Corn	1976	221	200	21980	146	9008	45	9607	48
	1977	208	186	28430	153	11070	60	10640	57
	1978	246	193	34340	178	12660	66	11930	62
Soybeans	1976	28	12	152	13	381	32	508	42
	1977	57	0						
	1978	10	2	363	182	136	68	136	68
Oats	1976	33	2	73	36	54	27	54	27
	1977	13	0						
	1978	27	0						
Hay	1976	26	7	0	0	327	47	653	93
	1977	29	0						
	1978	37	0						
Pasture	1976	30	0						
	1977	28	0						
	1978	16	0						
Grass*	1976	0	0						
	1977	0	0						
	1978	4	0						
Other†	1976	7							
	1977	9							
	1978	9							
Total	1976	345	221	29405		9770		10822	
	1977	345	186	28430		11070		10640	
	1978	345	195	34703		12796		12066	

*Government set-aside.

†Includes roads, farmyards and waterways.

TABLE A1-5. CROPS GROWN AND FERTILIZER APPLIED - SITE 7

Crop	Year	Total area ha	Fertilized area ha	Total N applied kg	Avg. N applied to fertilized area kg/ha	Total P_2O_5 applied kg	Avg. P_2O_5 applied to fertilized area kg/ha	Total K_2O applied kg	Avg. K_2O applied to fertilized area kg/ha
Corn	1976	104	104	15090	145	6237	60	6836	66
	1977	142	142	23180	163	9788	69	12980	91
	1978	138	138	23560	170	8540	62	10190	74
Soybeans	1976	121	0						
	1977	120	51	0	0	3130	61	5053	99
	1978	108	44	0	0	1837	42	2450	56
Oats	1976	23	0						
	1977	0	0						
	1978	21	4	0	0	227	57	272	68
Hay	1976	27	23	0	0	1538	57	1746	65
	1977	15	12	154	13	581	48	853	71
	1978	10	0						
Pasture	1976	0							
	1977	0							
	1978	0							
Grass*	1976	0							
	1977	0							
	1978	0							
Other†	1976	9							
	1977	7							
	1978	7							
Total	1976	284	127	15090		7775		8582	
	1977	284	205	23330		13500		18890	
	1978	284	186	23560		10600		12910	

*Government set-aside.

†Includes roads, farmyards and waterways.

TABLE A1-6. CROPS GROWN AND FERTILIZER APPLIED - SITE 8

Crop	Year	Total area ha	Fertilized area ha	Total N applied kg	Avg. N applied to fertilized area kg/ha	Total P_2O_5 applied kg	Avg. P_2O_5 applied to fertilized area kg/ha	Total K_2O applied kg	Avg. K_2O applied to fertilized area kg/ha
Corn	1976	77	77	13520	176	5230	68	4976	65
	1977	92	92	15690	171	6510	71	6078	66
	1978	95	95	17720	187	6836	72	6958	73
Soybeans	1976	39	16	0	0	1270	79	1088	68
	1977	26	7	0	0	572	82	490	70
	1978	28	28	1724	62	1021	36	953	34
Oats	1976	5	5	118	24	413	83	413	83
	1977	0	0						
	1978	4	4	454	114	272	68	318	80
Hay	1976	9	0						
	1977	13	0						
	1978	0	0						
Pasture	1976	4	0						
	1977	3	0						
	1978	3	1	26	26	0	0	0	0
Grass*	1976	0	0						
	1977	0	0						
	1978	3	0						
Other†	1976	16							
	1977	16							
	1978	17							
Total	1976	149	98	13640		6913		6477	
	1977	149	99	15690		7082		6568	
	1978	149	128	19920		8129		8229	

*Government set-aside.

†Includes roads, farmyards and waterways.

TABLE A2-1. PESTICIDE USAGE IN FOUR MILE CREEK WATERSHED (SITE 4)

Crop	Year	Total area of crop ha	Number of herbicides applied					Number of insecticides applied		
			0	1	2	3	4	0	1	2
			Area of application ha					Area of application ha		
Corn	1976	2792	28	692	1543	518	11	1185	1607	0
	1977	2734	54	845	1470	365	0	547	2187	65
	1978	2799	65	671	1627	426	10	547	2252	0
Soybeans	1976	1004	56	184	758	6				
	1977	1205	55	259	871	20				
	1978	1103	34	269	784	16				

TABLE A2-2. PESTICIDES USED ON CORN IN FOUR MILE CREEK WATERSHED (SITE 4)

Pesticide	Area applied ha			Total amount applied* kg active ingredient			Recommended rate of application kg/ha active ingredient
Herbicide	1976	1977	1978	1976	1977	1978	
Atrazine	1509	1161	928	3188	2148	1817	3.4
Banvel	175	232	349	78	121	155	0.6
Bladex	206	184	514	492	333	1042	4.5
Eradicane	8	8	69	32	45	194	5.6
Lasso	1086	1066	1353	3050	2642	3613	3.4
Paraquat†	7	6	7	8	7	8	1.1
Prowl	32	20	6	73	44	15	2.2
Ramrod	87	82	92	276	453	350	4.5
Sutan	1064	1252	1103	4035	5069	4403	4.5
2,4-D	1081	805	841	426	316	359	0.5
Insecticide							
Aldrin	32	10	0	35	11	0	1.1
Counter	438	1072	764	491	1347	967	1.1
Diazinon	0	0	12	0	0	14	
Dyfonate	553	401	646	697	485	873	1.1
Furadan	270	463	676	299	506	818	1.1
Heptachlor	16	0	0	18	0	0	1.1
Sevin	0	65	0	0	143	0	1.1
Thimet	298	241	154	339	294	182	1.1

*When actual application rate was unknown, product recommendations were used for calculation of total amount of pesticide applied. If the pesticide was used in combination with another, the rates of both were lowered.

†Used only at ISU sites 1 and 2.

TABLE A2-3. PESTICIDES USED ON SOYBEANS IN FOUR MILE CREEK WATERSHED

Pesticide	Area applied ha			Total amount applied* kg active ingredient			Recommended rate of application kg/ha active ingredient
Herbicide	1976	1977	1978	1976	1977	1978	
Amiben	55	163	94	90	222	98	2.2
Basagran	16	83	46	18	90	48	1.1
Basalin	0	0	79	0	0	88	1.1
CIPC	46	53	17	52	59	20	1.1
Cobex	49	0	0	21	0	0	0.5
Lasso	364	594	520	1023	1650	1311	3.4
Lorox	25	4	0	28	5	0	1.1
Modown	10	49	37	23	93	57	2.2
Paraquat†	6	7	6	7	8	7	1.1
Prowl	0	0	47	0	0	104	1.7
Sencor (Lexone)	580	575	762	245	250	381	0.6
Tolban	8	17	11	7	14	6	0.8
Treflan	512	502	395	518	422	319	0.8
Vernam	0	13	0	0	37	0	2.9

*When actual application rate was unknown, product recommendations were used for calculation of total amounts of herbicide applied. If the herbicide was used in combination with another, the rates of both were lowered.

†Used only at ISU sites 1 and 2.

TABLE A2-4. PESTICIDES USED ON CORN - SITE 5

Pesticide	Area applied ha			Total amount applied kg active ingredient		
Herbicide	1976	1977	1978	1976	1977	1978
Atrazine	1092	866	732	2012	1483	1343
Banvel	142	144	204	61	72	67
Bladex	139	120	376	314	204	757
Eradicane	9	8	69	32	45	194
Lasso	820	825	1071	2386	2120	2956
Paraquat*	7	6	7	8	7	8
Prowl	32	14	6	73	32	15
Ramrod	87	82	92	276	453	350
Sutan	959	1092	893	3612	4396	3543
2,4-D	856	694	813	336	270	347
None	19	38	16			
Insecticide						
Aldrin	32	10	0	35	11	0
Counter	393	956	608	441	1190	763
Diazinon	0	0	12	0	0	14
Dyfonate	459	259	487	592	313	669
Furadan	270	376	635	298	419	766
Heptachlor	16	0	0	18	0	0
Sevin	0	65	0	0	145	0
Thimet	203	148	80	227	173	100
None	739	327	259			

*Used only at ISU sites 1 and 2.

TABLE A2-5. PESTICIDES USED ON SOYBEANS - SITE 5

Pesticide	Area applied ha			Total amount applied kg active ingredient		
Herbicide	1976	1977	1978	1976	1977	1978
Amiben	40	127	79	73	158	81
Basagran	0	23	10	0	23	11
Basalin	0	0	79	0	0	88
CIPC	46	53	17	52	59	20
Cobex	41	0	0	17	0	0
Lasso	311	484	434	895	1370	1100
Lorox	0	4	0	0	5	0
Modown	10	49	37	23	93	57
Paraquat*	6	7	6	7	8	7
Prowl	0	0	32	0	0	73
Sencor (Lexone)	517	527	667	218	225	344
Tolban	8	17	11	7	14	6
Treflan	375	413	329	409	352	276
Vernam	0	13	0	0	37	0
None	53	63	31			

*Used only at ISU sites 1 and 2.

TABLE A2-6. PESTICIDES USED - SITE 6

Pesticide	Area applied ha			Total amount applied kg active ingredient		
	1976	1977	1978	1976	1977	1978
Herbicide corn						
Atrazine	185	131	74	476	284	144
Banvel	0	12	62	0	7	42
Bladex	7	0	18	25	0	40
Lasso	0	50	37	0	110	91
Prowl	0	6	6	0	13	15
Sutan	62	86	123	245	323	543
2,4-D	105	10	0	44	4	0
None	0	16	25			
Insecticide corn						
Counter	45	108	35	50	149	46
Dyfonate	57	29	97	64	33	112
Furadan	0	36	11	0	44	16
Thimet	83	0	25	98	0	28
None	36	35	78			
Herbicide soybeans						
Cobex	8	0	0	3	0	0
Lasso	8	57	2	27	156	8
Basagran	0	49	0	0	55	0
Sencor	11	0	10	12	0	6
Treflan	11	0	8	6	0	5
None	0	0	0			

TABLE A2-7. PESTICIDES USED - SITE 7

Pesticide	Area applied ha			Total amount applied kg active ingredient		
	1976	1977	1978	1976	1977	1978
Herbicide corn						
Atrazine	23	17	33	40	38	56
Banvel	40	24	33	8	3	6
Bladex	0	0	37	0	0	67
Lasso	20	18	61	68	60	185
Sutan	81	92	77	292	401	248
2,4-D	72	46	57	24	13	21
None	0	32	0			
Insecticide corn						
Aldrin	32	0	0	35	0	0
Counter	0	35	17	0	46	20
Dyfonate	0	24	85	0	29	95
Furadan	0	4	36	0	5	37
Thimet	18	47	0	20	53	0
None	54	32	0			
Herbicide soybeans						
Amiben	0	9	22	0	5	25
Lasso	57	51	54	181	199	146
Sencor	88	69	54	49	39	30
Treflan	64	69	54	54	58	45
None	0	0	0			

TABLE A2-8. PESTICIDES USED - SITE 8

Pesticide	Area applied ha			Total amount applied kg active ingredient		
	1976	1977	1978	1976	1977	1978
Herbicide corn						
Atrazine	56	7	0	141	20	0
Bladex	7	6	7	16	17	16
Banvel	0	28	0	0	4	0
Lasso	14	14	27	40	48	76
Paraquat*	7	6	7	8	7	8
Ramrod	7	6	7	16	14	16
Sutan	44	64	61	164	266	258
2,4-D	43	54	59	18	15	25
None	0	0	0			
Insecticide corn						
Counter	42	42	20	47	45	26
Dyfonate	0	0	27	0	0	30
Furadan	16	0	26	15	0	29
None	19	50	22			
Herbicide soybeans						
Lasso	6	7	16	14	16	36
Modown	10	0	0	23	0	0
Paraquat*	6	7	6	7	8	7
Sencor	6	9	24	3	5	12
Treflan	26	18	12	22	15	11
None	6	0	0			

*Used only at ISU sites 1 and 2.

TABLE A3-1. TILLAGE SYSTEMS AND CONSERVATION PRACTICES USED IN FOUR MILE CREEK WATERSHED (SITE 4)

Crop	Year	Total area ha	Primary tillage*						Conservation practice		
			Moldboard plow ha	Disk: Soybean residue ha	Disk: Corn-stalks ha	Chisel: Soybean residue ha	Chisel: Corn-stalks ha	Minimum-till ha	Contour ha	Contour strip crop ha	Terraced ha
Corn	1976	2792	1308	847	339	120	178	0	199	88	8
	1977	2734	1013	748	437	128	386	22	149	57	54
	1978	2799	804	886	506	149	420	34	315	73	36
Soybeans	1976	1004	736	57	75	0	136	0	21	0	14
	1977	1205	826	107	120	0	152	0	107	23	0
	1978	1103	571	72	229	0	209	22	75	24	18
Oats	1976	244	16	0	228	--	--	--	--	15	0
	1977	170	11	0	159	--	--	--	--	8	0
	1978	139	0	0	139	--	--	--	--	0	0
Hay	1976	595	0	0	0	--	--	--	--	5	0
Pasture }†	1977	535	0	0	0	--	--	--	--	15	0
Grass	1978	600	14	17	90	--	--	--	--	44	0
Total	1976	4635	2060	904	642	120	314	0	220	108	22
area	1977	4644	1850	855	716	128	538	22	256	103	54
	1978	4641	1375	975	964	149	629	56	390	141	54

*Primary tillage was the main tillage method used by the farmer to bury the residue from the previous year's crop and prepare the soil for the crop to be planted.

†Hay and pasture required no tillage since they were normally established in the previous year. Most grass for government set-aside hectares required the same tillage preparation as oats.

TABLE A4-1. LIVESTOCK INVENTORY OF THE FOUR MILE CREEK WATERSHED (SITE 4)

Year	Steers fed*	Pigs fed†	Chickens fed§	Cows and calves on pasture animal units∞	Pasture area surveyed ha	Animal units on pasture animal units/ha/yr
1976	2065	7500	12,300	750	387	1.9
1977	1900	7200	12,300	612	359	1.7
1978	1700	8650	12,000	685	278	2.5

*Steers fed include steers and heifers that were fed from approximately 400 lb body weight up to 1000 lb in preparation for slaughter. The figure is an estimate of the number fed in the watershed on an annual basis.

†Most pigs were raised from farrow to finish in the watershed. The figure is an estimate of the number raised and finished on an annual basis.

§Chickens fed are those used in an egg production operation.

∞An animal unit is considered to be one cow with a 100 lb calf.

APPENDIX B

PRECIPITATION AND WEATHER MEASUREMENTS

TABLE B1-0. PRECIPITATION AT FOUR MILE CREEK WATERSHED AND NEARBY NOAA STATIONS, mm*

Date	ISU gages						Watershed average	NOAA stations			
	31	32	33	34	35	36		Traer	Grundy Center†	Marshall-town†	Toledo†
1976											
1/2							<1	1	0	0	0
1/6							1	1	1	0	1
1/25							3	3	4	4	2
Jan.	4§	4	4	4	4	4	4	5	5	4	3
2/15							3	5	3	3	2
2/16							13	13	14	10	16
2/21							36	41	32	40	31
Feb.	52	52	52	52	52	52	52	59	49	53	49
3/2							2	2	2	0	2
3/4							33	34	27	30	40
3/11							13	9	16	14	12
3/12							3	8	0	2	1
3/23			I∞		I	I					
3/26			2		2	2	2	2	1	<1	5
3/28			3		4	4	3	0	3	4	1
3/29			26		19	18	21	19	35	28	16
3/30			2		2	2	2	4	1	1	0
March	79	79	84	79	78	77	79	78	85	79	77
4/14			11		14	11	12	14	15	7	15

*Precipitation during the months of December, January, February and March was in the form of snow or snow and rain mixed.

†Instruments at this station were read each day at 7:00 AM. Daily precipitation data at the station have been adjusted to correspond to the day on which precipitation actually occurred. For the location of stations see Figure 4.

§Precipitation data for periods when gages were inoperable were obtained by averaging the data from operating stations.

∞Gage installed.

TABLE B1-0 (continued)

Date	ISU gages 31	32	33	34	35	36	Watershed average	NOAA stations Traer	Grundy Center	Marshall-town	Toledo
4/15/76			3		2	4	3	3	3	1	2
4/17			36		30	30	32	32	9	13	23
4/18			26		27	30	28	29	70	65	37
4/19	I										
4/20	26		26		40	31	31	25	30	26	31
4/21	0		2		0	1	1	8	1	0	4
4/23	17		26		26	27	24	30	15	8	12
4/24	8		8		16	8	10	10	5	38	29
4/25	1		1		0	3	1	6	1	4	6
April	127	142	139	142	155	145	142	157	149	162	159
5/2	12		10		12	11	11	12	10	8	9
5/12	0	I	1	I	0	1	1	2	5	7	5
5/13	6	8	7	8	9	8	8	7	2	2	2
5/15	3	4	4	7	4	3	4	3	11	12	14
5/16	20	20	14	10	16	17	16	22	14	6	5
5/22	13	10	10	9	13	8	11	7	33	11	4
5/23	3	2	2	3	3	6	3	2	3	9	4
5/28	7	2	7	3	7	3	5	10	70	15	25
5/29	15	14	31	11	31	24	21	23	7	1	1
May	79	72	86	63	95	81	80	88	155	71	69
6/10	13	12	11	10	20	25	15	15	11	11	12
6/12	14	14	13	12	17	14	14	12	13	18	26
6/13	37	44	36	35	38	41	39	31	38	61	38
6/17	0	0	0	0	5	6	2	1	2	0	1
6/23	0	0	0	0	4	4	1	0	0	T¶	0
6/24	10	8	9	7	12	9	9	17	6	9	0
6/25	1	1	0	0	2	1	1	1	2	0	0
6/26	3	2	2	2	3	1	2	7	5	2	17
6/29	7	6	6	7	9	7	7	17	4	18	21
June	85	87	77	73	110	108	90	101	81	119	115

¶T Indicates an immeasurable trace of precipitation.

TABLE B1-0 (continued).

Date	ISU gages 31	32	33	34	35	36	Watershed average	NOAA stations Traer	Grundy Center	Marshall-town	Toledo
7/16/76	1	1	1	0	1	1	1	1	7	1	3
7/20	5	7	5	9	6	5	6	8	10	20	1
7/26	1	1	1	1	1	1	1	1	2	1	1
7/28	34	23	28	28	25	27	28	25	32	20	41
7/30	0	0	0	0	4	4	1	5	12	0	0
July	41	32	35	38	37	38	37	40	63	42	46
8/11	3	8	7	9	5	5	6	4	2	5	15
8/13	1	3	2	1	1	1	2	1	10	5	4
8/17	17	6	5	3	2	2	6	0	50	3	0
Aug.	21	17	14	13	8	8	14	5	62	13	19
9/13	8	1	0	1	0	0	2	2	4	4	0
9/19	13	24	28	15	12	12	17	7	30	9	10
9/27	1	1	0	2	4	5	2	6	2	2	6
Sept.	22	26	28	18	16	17	21	15	36	15	16
10/4	4	10	7	7	10	10	8	18	2	3	4
10/5	3	3	3	4	6	5	4	4	6	6	19
10/18	2	2	2	2	3	3	2	2	5	5	4
10/19	2	2	2	2	3	4	3	4	T	T	1
10/24	8	7	8	7	7	7	7	5	10	3	2
10/30	8	8	8	9	10	9	9	12	6	7	10
Oct.	27	32	30	31	39	38	33	45	29	24	40
11/23				C[ϕ]	C						
11/26	0	0	0			0	0	3	0	1	1
Nov.	0	0	0	0	0	0	0	3	0	1	1
12/2	C	C	C			C					
12/5							8	11	8	9	5
12/7							1	1	1	1	0
12/9				S[×]							

ϕGage closed.

×Snow gage installed.

TABLE B1-0 (continued)

Date	ISU gages 31	32	33	34	35	36	Watershed average	NOAA stations Traer	Grundy Center	Marshall-town	Toledo
12/22/76						S					
12/30			1			1	1	1	1	0	0
Dec.	9	9	9	9	9	9	9	13	10	10	5
1976 total	546	552	558	522	603	577	562	609	724	593	599
1977											
1/3			D$^{\Phi}$			1	1	1	1	1	1
1/14						1	1	2	1	0	1
1/20						2	2	3	1	3	0
1/23						1	1	2	1	1	3
1/28						1	1	1	3	3	2
Jan.	6	6	6	6	6	6	6	9	7	8	7
2/5						1	1	1	1	1	1
2/23						12	12	14	13	10	9
Feb.	13	13	13	13	13	13	13	15	14	11	10
3/2						4	4	6	7	8	5
3/11						51	51	55	37	24	53
3/12						1	1	2	2	0	2
3/17						10	10	10	8	10	12
3/18						2	2	1	0	0	0
3/19						6	6	7	6	13	13
3/27						5	5	8	2	9	8
3/28						15	15	12	16	13	17
3/29	Ø$^{\zeta}$	Ø		Ø	Ø	3	3	2	1	2	1
3/31	1	0	0	0	0	0	<1	0	1	0	0
March	98	97	97	97	97	97	97	103	80	79	111
4/1	11	10	10	7	10	12	10	12	17	18	13

$^{\Phi}$Snow gage damaged.

$^{\zeta}$Gage opened.

TABLE B1-0 (continued).

Date	ISU gages 31	32	33	34	35	36	Watershed average	NOAA stations Traer	Grundy Center	Marshall-town	Toledo
4/2/77	4	6	12	6	3	6	6	4	1	1	0
4/3	3	5	4	5	5	4	4	5	8	13	11
4/4	7	7	7	7	10	8	8	11	4	2	4
4/5	1	1	1	0	3	1	1	2	1	0	0
4/14	1	1	1	2	8	6	3	3	9	2	9
4/17	2	4	1	1	1	0	1	2	5	1	1
4/19	0	20	20	10	9	9	11	4	0	2	9
4/20	9	7	13	7	7	8	11	7	6	7	20
4/21	6	8	0	8	9	10	7	11	7	7	7
4/28	6	6	7	5	5	6	6	4	10	2	1
April	50	75	76	58	70	70	67	65	68	55	75
5/3	0	2	0	1	2	2	1	2	1	2	1
5/4	15	16	16	13	18	17	16	13	39	12	25
5/15	6	7	1	1	2	2	3	1	1	0	0
5/16	0	0	0	0	4	5	1	0	0	1	0
5/17	0	2	0	0	1	1	1	0	2	1	0
5/20	2	5	2	2	1	1	2	1	7	6	3
5/21	11	14	9	12	9	12	11	9	7	15	15
5/26	0	0	0	0	3	8	2	0	2	0	3
5/29	5	6	3	2	0	0	3	1	0	12	0
5/30	6	7	4	7	0	0	4	0	28	0	43
May	45	59	35	38	40	48	44	27	87	49	90
6/8	5	5	5	6	5	4	5	5	9	6	8
6/11	6	4	6	1	1	8	4	1	3	0	6
6/17	4	22	21	25	23	32	21	22	31	30	18
6/23	14	9	9	9	10	11	10	6	9	4	4
6/24	6	1	1	0	4	3	3	0	10	1	2
6/30	1	1	1	1	3	1	1	9	0	3	15
June	36	42	43	42	46	59	45	43	62	44	53
7/3	17	13	12	13	12	11	13	11	10	1	10
7/6	25	23	26	37	31	35	30	15	29	26	13

TABLE B1-0 (continued).

Date	ISU gages 31	32	33	34	35	36	Watershed average	Traer	NOAA stations Grundy Center	Marshall-town	Toledo
7/11/77	3	1	2	1	1	5	2	<1	1	2	6
7/15	33	14	19	9	15	13	17	6	34	7	32
7/17	5	4	4	5	7	6	5	6	<1	<1	2
7/18	0	2	11	7	12	15	8	11	22	11	15
7/21	13	12	7	5	4	4	8	2	10	21	9
7/24	11	4	5	3	1	1	4	2	4	T	10
7/28	2	20	30	42	41	39	29	46	2	5	11
7/30	3	1	1	1	1	1	1	<1	1	<1	8
July	112	94	117	123	125	130	117	99	113	73	116
8/1	31	30	16	30	19	17	24	6	7	11	3
8/5	13	14	18	20	15	19	17	15	14	9	14
8/7	<1	1	3	2	5	12	4	8	3	14	10
8/8	20	18	15	22	19	13	18	23	4	42	30
8/9	9	10	12	11	12	12	11	15	4	19	23
8/13	5	5	6	4	3	5	5	3	1	1	1
8/15-16	46	R[ψ]	36	34	33	34	37	32	33	137	146
8/19	8		5	6	5	6	6	6	13	5	9
8/21	0		2	2	3	6	3	6	4	6	15
8/25-56	16		19	12	9	11	13	7	9	13	43
8/27	7		13	13	16	16	13	27	11	22	33
8/28	14		15	16	20	19	17	13	12	23	32
8/31	15		16	28	21	28	22	17	11	15	14
Aug.	188	195	181	207	185	203	196	184	133	325	381
9/1	<1		<1	<1	2	<1	0	<1	1	0	0
9/3	6		6	7	6	6	6	6	3	11	15
9/7	<1		<1	1	2	3	1	4	1	14	11
9/9	3		1	3	4	4	3	3	3	11	5
9/12	3		2	1	5	5	3	4	4	2	2
9/15	3		4	4	4	3	4	4	2	1	5

ψRain gage damaged.

TABLE B1-0 (continued).

Date	ISU gages 31	32	33	34	35	36	Watershed average	NOAA stations Traer	Grundy Center	Marshall-town	Toledo
9/17/77	42		35	56	69	68	54	48	45	10	10
9/18	12	W∂	14	13	14	11	13	11	8	13	27
9/23	17	14	15	18	20	21	18	35	22	18	31
9/30	21	21	19	23	22	23	22	29	18	35	30
Sept.	107	118	96	126	148	144	124	144	107	115	136
10/7	28	23	27	27	29	29	27	29	28	29	27
10/10	6	5	7	6	5	6	6	4	5	6	5
10/21	6	3	7	4	5	9	6	8	6	13	13
10/22	4	7	5	9	10	5	7	5	26	26	33
10/23	30	31	34	29	35	33	32	40	12	9	10
10/24	8	8	8	6	6	6	7	9	2	T	1
10/30	2	<1	2	2	3	1	2	3	3	3	2
10/31	12	19	15	12	9	9	13	8	13	20	11
Oct.	96	96	105	95	102	98	100	106	95	106	102
11/1	1	1	2	2	4	4	2	2	1	3	6
11/3	2	2	2	2	3	3	2	4	2	1	1
11/9	2	1	1	1	2	2	2	5	3	<1	3
11/20	2	8	6	2	5	5	5	1	3	<1	2
11/21	C	C	C	C	C						
11/23						8	8	7	7	3	<1
11/25						5	5	9	8	6	6
11/27						1	1	2	1	1	1
11/30						3	3	3	<1	<1	<1
Nov.	24	29	28	24	31	31	28	33	25	14	19
12/5						17	17	21	10	8	8
12/8						1	1	15	9	10	6
12/9						1	1	0	3	T	1
12/17						10	10	7	4	2	T
12/19						2	2	3	6	5	9

∂Gage repaired.

TABLE B1-0 (continued).

Date	ISU gages 31	32	33	34	35	36	Watershed average	NOAA stations Traer	Grundy Center	Marshall-town	Toledo
12/20						2	2	2	4	2	1
Dec.	33	33	33	33	33	33	33	48	36	27	25
1977 total	808	857	830	862	896	932	870	876	827	906	1125
1978											
1/1						20	20	20	17	16	16
1/12						6	6	5	3	5	2
1/25						4	4	2	4	3	2
1/31						1	1	5	1	1	1
Jan.	31	31	31	31	31	31	31	32	25	25	21
2/1						7	7	0	3	4	3
2/4						2	2	5	2	6	5
2/13						2	2	3	1	6	5
2/22						3	3	3	1	4	2
Feb.	14	14	14	14	14	14	14	11	7	20	15
3/2						1	1	2	4	5	4
3/11						4	4	5	4	2	4
3/13						2	2	3	4	3	4
3/17						7	7	2	2	<1	<1
3/27	ø	ø	ø	ø	ø	<1	<1	3	<1	1	2
March	14	14	14	14	14	14	14	15	14	11	14
4/3	1	1	2	2	1	1	1	4	<1	1	<1
4/5	21	21	27	28	27	27	25	30	25	27	25
4/6	2	4	1	1	4	5	3	5	3	3	3
4/8	3	2	3	3	4	4	3	3	3	3	3
4/9	20	19	17	19	20	20	19	21	25	19	25
4/17	53	54	54	50	58	52	54	54	56	52	56
4/18	13	15	16	14	14	14	14	13	20	16	20
4/19	1	1	1	1	1	1	1	2	1	1	1
4/20	1	1	1	1	1	1	1	1	1	1	1
4/22	5	4	5	6	6	6	5	6	6	5	6

TABLE B1-0 (continued).

Date	ISU gages						Watershed average	NOAA stations			
	31	32	33	34	35	36		Traer	Grundy Center	Marshall-town	Toledo
April	120	122	127	125	136	131	126	139	140	128	140
5/7/78	18	16	17	16	19	18	18	22	12	17	15
5/8	4	3	3	3	3	3	3	1	10	9	8
5/12	14	13	15	11	15	14	14	22	<1	1	1
5/13	22	22	22	26	36	32	27	18	36	34	38
5/22	1	1	1	1	1	1	1	0	<1	2	1
5/27	3	27	28	31	4	3	16	1	<1	2	0
5/28	<1	<1	<1	<1	<1	3	1	0	<1	<1	8
5/31	11	10	15	16	7	9	11	3	0	<1	0
May	73	92	101	104	85	83	91	67	58	65	63
6/1	5	5	4	6	4	4	5	2	26	6	3
6/6	1	1	1	1	1	1	1	0	<1	1	0
6/7	<1	3	2	1	1	3	2	1	3	0	1
6/14	7	7	7	8	10	9	8	26	0	0	0
6/15	23	24	24	24	18	24	23	15	19	26	33
6/17	4	3	2	2	5	3	3	4	3	2	2
6/20	29	38	20	32	42	39	35	39	32	38	24
6/23	1	1	1	1	1	2	1	4	1	<1	1
6/26	1	1	1	1	1	1	1	5	1	3	14
6/28	<1	21	1	24	12	15	12	50	13	19	7
6/29	<1	<1	<1	<1	<1	3	1	1	<1	0	0
June	71	104	73	100	95	104	92	147	98	95	85
7/2	4	4	5	1	0	0	2	0	<1	1	0
7/6	11	12	13	10	10	8	11	7	10	9	11
7/7	3	3	3	4	5	5	4	4	5	7	6
7/8	3	3	2	3	2	3	3	4	0	0	0
7/9	3	3	3	4	5	4	4	4	4	31	34
7/12	5	4	4	4	4	4	4	3	4	7	10
7/17	10	6	7	3	4	5	6	4	4	6	<1
7/18	32	27	23	29	22	25	26	23	23	29	15
7/19	8	7	7	9	13	8	9	12	35	21	31

TABLE B1-0 (continued).

Date	ISU gages 31	32	33	34	35	36	Watershed average	Traer	NOAA stations Grundy Center	Marshall-town	Toledo
7/20/78	3	2	3	1	3	3	3	6	<1	<1	0
7/21	3	3	2	2	1	2	2	5	5	4	16
7/22	2	2	4	3	2	4	3	2	23	4	4
7/26	8	6	6	4	4	5	6	3	7	1	0
July	95	82	82	77	75	76	83	77	120	120	127
8/15	1	0	0	0	0	0	<1	0	1	3	0
8/17	6	3	2	3	2	1	3	1	T	28	16
8/21	26	20	19	20	17	18	20	24	29	20	8
8/22	2	0	0	0	0	0	<1	1	0	0	0
8/26	95	73	70	94	80	71	81	86	1	6	5
8/27	5	7	10	9	13	15	10	5	66	43	45
Aug.	135	103	101	126	112	105	114	117	97	100	74
9/12	25	18	15	16	13	15	17	13	10	11	8
9/13	48	53	51	58	61	53	54	55	73	70	50
9/14	4	4	5	7	5	7	5	1	7	9	4
9/16	18	2	5	1	2	2	5	2	2	0	0
9/17	9	11	12	13	13	14	12	18	34	20	33
9/18	3	3	4	2	3	3	3	4	3	3	4
9/19	30	20	23	24	30	29	26	10	29	18	24
9/20	30	30	29	30	29	28	29	23	32	30	30
9/29	2	3	2	3	4	4	3	2	1	2	6
Sept.	169	144	146	154	160	155	154	128	191	153	159
10/2	14	17	16	14	15	16	15	18	<1	0	0
10/3	1	3	1	1	1	1	1	1	9	14	11
10/9	14	17	15	13	15	12	14	21	14	16	23
10/22	4	3	4	4	5	4	4	3	4	2	3
Oct.	33	40	36	32	36	33	35	43	27	32	37
11/5	2	1	1	1	1	2	1	1	2	3	2
11/11	1	0	0	0	0	0	<1	0	0	0	0
11/12	42	41	43	41	41	42	42	37	41	49	28

TABLE B1-0 (continued).

Date	ISU gages						Watershed average	NOAA stations			
	31	32	33	34	35	36		Traer	Grundy Center	Marshall-town	Toledo
11/14	C	C		C	C						
11/16			5			12	9	18	0	0	0
11/17			32			26	29	19	28	30	37
11/21			C								
11/22						7	7	7	7	6	1
11/23						0	0	1	1	1	1
11/26						1	1	1	0	0	1
11/27						1	1	1	1	1	2
11/29			Ø			7	7	1	0	0	0
Nov.	99	96	97	96	96	98	97	86	80	90	72
12/1			5			4	5	6	1	3	1
12/2			5			8	6	10	10	12	15
12/3			0			0	0	1	1	1	2
12/5			3			2	3	4	2	3	2
12/7			1			0	<1	0	1	0	1
12/23			1			2	1	2	1	1	0
12/24			1			1	1	1	1	0	0
12/29			2			3	3	3	1	2	<1
12/30			0			0	0	1	0	0	2
12/31			7			8	7	9	0	0	0
Dec.	26	26	25	26	26	28	26	37	18	22	23
1978 total	880	868	847	899	880	872	877	899	875	861	830

TABLE B1- 1. FOUR MILE CREEK WATERSHED PRECIPITATION DATA FOR 1976 GAGE 31

GAGE	DATE	HOUR	MIN	PRECIP INTENSITY MM/HR	ACCUMULATED PRECIPITATION STORM MM	DAY MM	YEAR MM
31	4/14/76			NO DATA	0.0	0.0	0.0
31	4/14/76			NO DATA	10.9	10.9	10.9
31	4/15/76			NO DATA	0.0	0.0	10.9
31	4/15/76			NO DATA	4.1	4.1	15.0
31	4/17/76			NO DATA	0.0	0.0	15.0
31	4/17/76			NO DATA	30.7	30.7	45.7
31	4/18/76			NO DATA	0.0	0.0	45.7
31	4/18/76			NO DATA	28.4	28.4	74.2
31	4/20/76	11	12	0.0	0.0	0.0	74.2
31	4/20/76	11	33	2.2	0.8	0.8	74.9
31	4/20/76	11	36	5.1	1.0	1.0	75.2
31	4/20/76	11	42	2.6	1.3	1.3	75.4
31	4/20/76	11	47	3.1	1.5	1.5	75.7
31	4/20/76	11	53	2.6	1.8	1.8	76.0
31	4/20/76	12	2	1.7	2.1	2.1	76.2
31	4/20/76	12	12	1.5	2.3	2.3	76.5
31	4/20/76	12	50	1.6	3.3	3.3	77.5
31	4/20/76	12	59	1.7	3.6	3.6	77.8
31	4/20/76	13	15	1.9	4.1	4.1	78.3
31	4/20/76	13	36	5.1	5.9	5.9	80.1
31	4/20/76	14	17	1.9	7.2	7.2	81.3
31	4/20/76	14	37	2.3	8.0	8.0	82.1
31	4/20/76	15	19	1.8	9.2	9.2	83.4
31	4/20/76	15	40	5.1	11.0	11.0	85.2
31	4/20/76	15	50	3.1	11.5	11.5	85.7
31	4/20/76	16	25	3.5	13.6	13.6	87.8
31	4/20/76	16	40	3.1	14.4	14.4	88.5
31	4/20/76	16	58	1.7	14.9	14.9	89.0
31	4/20/76	17	27	2.7	16.2	16.2	90.3
31	4/20/76	17	35	9.6	17.4	17.4	91.6
31	4/20/76	17	41	5.1	18.0	18.0	92.1
31	4/20/76	17	52	4.2	18.7	18.7	92.9
31	4/20/76	17	55	10.3	19.2	19.2	93.4
31	4/20/76	18	2	4.4	19.8	19.8	93.9
31	4/20/76	18	20	4.3	21.0	21.0	95.2
31	4/20/76	18	37	2.7	21.8	21.8	96.0
31	4/20/76	18	40	5.1	22.1	22.1	96.2
31	4/20/76	19	12	1.0	22.6	22.6	96.7
31	4/20/76	19	32	0.8	22.8	22.8	97.0
31	4/20/76	20	10	0.8	23.3	23.3	97.5
31	4/20/76	20	26	1.9	23.9	23.9	98.0
31	4/20/76	20	34	1.9	24.1	24.1	98.3
31	4/20/76	20	43	1.7	24.4	24.4	98.5
31	4/20/76	20	50	2.2	24.6	24.6	98.8
31	4/20/76	21	4	1.1	24.9	24.9	99.1
31	4/20/76	21	6	7.7	25.1	25.1	99.3
31	4/20/76	21	56	0.6	25.7	25.7	99.8
31	4/23/76	7	45	0.0	0.0	0.0	99.8
31	4/23/76	7	56	1.4	0.3	0.3	100.1
31	4/23/76	8	6	4.6	1.0	1.0	100.8
31	4/23/76	8	16	3.0	1.5	1.5	101.3
31	4/23/76	8	37	2.2	2.3	2.3	102.1
31	4/23/76	8	44	6.5	3.0	3.0	102.9
31	4/23/76	8	48	15.2	4.1	4.1	103.9
31	4/23/76	8	54	7.6	4.8	4.8	104.6
31	4/23/76	8	57	10.2	5.3	5.3	105.2
31	4/23/76	9	2	3.0	5.6	5.6	105.4
31	4/23/76	9	4	15.2	6.1	6.1	105.9
31	4/23/76	9	8	7.6	6.6	6.6	106.4
31	4/23/76	9	11	10.2	7.1	7.1	106.9
31	4/23/76	9	15	3.8	7.4	7.4	107.2
31	4/23/76	9	17	15.2	7.9	7.9	107.7
31	4/23/76	9	26	10.2	9.4	9.4	109.2
31	4/23/76	9	42	5.7	10.9	10.9	110.7
31	4/23/76	9	53	4.2	11.7	11.7	111.5
31	4/23/76	10	2	5.1	12.4	12.4	112.3
31	4/23/76	10	7	9.1	13.2	13.2	113.0
31	4/23/76	10	12	3.0	13.5	13.5	113.3
31	4/23/76	10	20	1.9	13.7	13.7	113.5
31	4/23/76	17	25	0.0	0.0	13.7	113.5
31	4/23/76	17	26	14.6	0.2	14.0	113.8
31	4/23/76	17	28	58.5	2.2	15.9	115.7
31	4/23/76	17	46	1.6	2.7	16.4	116.2
31	4/23/76	17	50	3.7	2.9	16.6	116.5
31	4/24/76	1	47	0.0	2.9	0.0	116.5
31	4/24/76	1	51	7.3	3.4	0.5	117.0
31	4/24/76	1	54	14.6	4.1	1.2	117.7
31	4/24/76	2	3	1.6	4.4	1.5	117.9
31	4/24/76	2	30	1.1	4.9	2.0	118.4
31	4/24/76	5	0	0.0	4.9	2.0	118.4
31	4/24/76	5	13	1.1	5.1	2.2	118.7
31	4/24/76	5	20	4.2	5.6	2.7	119.1
31	4/24/76	5	32	1.2	5.9	2.9	119.4
31	4/24/76	5	42	1.5	6.1	3.2	119.6
31	4/24/76	5	50	1.8	6.3	3.4	119.9
31	4/24/76	5	56	2.4	6.6	3.7	120.1
31	4/24/76	6	6	2.9	7.1	4.1	120.6
31	4/24/76	6	15	1.6	7.3	4.4	120.9
31	4/24/76	10	0	0.0	7.3	4.4	120.9
31	4/24/76	10	24	0.6	7.6	4.6	121.1
31	4/24/76	10	50	0.6	7.8	4.9	121.3
31	4/24/76	12	40	0.0	7.8	4.9	121.3
31	4/24/76	12	44	3.7	8.0	5.1	121.6
31	4/24/76	13	0	0.9	8.3	5.4	121.8
31	4/24/76	13	20	0.7	8.5	5.6	122.1
31	4/24/76	16	20	0.0	8.5	5.6	122.1
31	4/24/76	16	40	0.7	8.8	5.9	122.3
31	4/24/76	17	15	1.7	9.8	6.8	123.3

TABLE 81- 1. CONTINUED

GAGE	DATE	HOUR	MIN	PRECIP INTENSITY MM/HR	ACCUMULATED STORM MM	PRECIPITATION DAY MM	PRECIPITATION YEAR MM
31	4/24/76	17	48	0.9	10.2	7.3	123.8
31	4/24/76	18	55	0.7	11.0	8.0	124.5
31	4/25/76	3	47	0.0	11.0	0.0	124.5
31	4/25/76	4	14	0.5	11.2	0.2	124.8
31	4/25/76	4	46	1.8	12.2	1.2	125.7
31	5/ 2/76	1	40	0.0	0.0	0.0	125.7
31	5/ 2/76	2	14	0.9	0.5	0.5	126.2
31	5/ 2/76	2	17	14.6	1.2	1.2	126.9
31	5/ 2/76	2	24	4.2	1.7	1.7	127.4
31	5/ 2/76	2	32	1.8	1.9	1.9	127.7
31	5/ 2/76	2	36	3.7	2.2	2.2	127.9
31	5/ 2/76	2	46	7.3	3.4	3.4	129.1
31	5/ 2/76	2	53	4.2	3.9	3.9	129.6
31	5/ 2/76	3	4	4.0	4.6	4.6	130.4
31	5/ 2/76	3	20	0.9	4.9	4.9	130.6
31	5/ 2/76	3	45	1.2	5.4	5.4	131.1
31	5/ 2/76	3	51	7.3	6.1	6.1	131.8
31	5/ 2/76	4	1	4.4	6.8	6.8	132.5
31	5/ 2/76	4	10	3.2	7.3	7.3	133.0
31	5/ 2/76	4	20	0.0	7.3	7.3	133.0
31	5/ 2/76	4	37	2.6	8.0	8.0	133.8
31	5/ 2/76	4	55	3.2	9.0	9.0	134.7
31	5/ 2/76	5	4	1.6	9.2	9.2	135.0
31	5/ 2/76	5	17	1.1	9.5	9.5	135.2
31	5/ 2/76	5	25	5.5	10.2	10.2	136.0
31	5/ 2/76	5	50	1.2	10.7	10.7	136.4
31	5/ 2/76	6	27	1.2	11.4	11.4	137.2
31	5/ 2/76	7	5	0.4	11.7	11.7	137.4
31	5/12/76	23	35	0.0	0.0	0.0	137.4
31	5/13/76	0	10	0.0	0.0	0.0	137.4
31	5/13/76	2	0	0.4	0.7	0.7	138.1
31	5/13/76	3	10	0.8	1.7	1.7	139.1
31	5/13/76	4	20	0.4	2.2	2.2	139.6
31	5/13/76	5	10	0.9	2.9	2.9	140.3
31	5/13/76	5	40	1.0	3.4	3.4	140.8
31	5/13/76	6	30	0.9	4.1	4.1	141.6
31	5/13/76	7	30	0.0	4.1	4.1	141.6
31	5/13/76	8	50	0.5	4.9	4.9	142.3
31	5/13/76	10	4	0.6	5.6	5.6	143.0
31	5/13/76	10	40	0.4	5.8	5.8	143.3
31	5/15/76	9	25	0.0	0.0	0.0	143.3
31	5/15/76	9	35	3.0	0.5	0.5	143.8
31	5/15/76	10	20	1.4	1.5	1.5	144.8
31	5/15/76	12	0	0.5	2.3	2.3	145.5
31	5/15/76	14	15	0.1	2.5	2.5	145.8
31	5/15/76	14	35	1.5	3.0	3.0	146.3
31	5/15/76	15	10	0.4	3.3	3.3	146.6
31	5/16/76	0	40	0.0	3.3	0.0	146.6
31	5/16/76	0	43	15.2	4.1	0.8	147.3
31	5/16/76	1	59	0.0	4.1	0.8	147.3
31	5/16/76	2	20	2.2	4.8	1.5	148.1
31	5/16/76	2	50	2.0	5.8	2.5	149.1
31	5/16/76	3	0	1.5	6.1	2.8	149.3
31	5/16/76	3	10	0.0	6.1	2.8	149.3
31	5/16/76	3	30	1.5	6.6	3.3	149.9
31	5/16/76	4	5	0.4	6.9	3.6	150.1
31	5/16/76	4	10	6.1	7.4	4.1	150.6
31	5/16/76	4	50	0.8	7.9	4.6	151.1
31	5/16/76	5	14	3.2	9.1	5.8	152.4
31	5/16/76	5	20	0.0	9.1	5.8	152.4
31	5/16/76	5	40	2.3	9.9	6.6	153.2
31	5/16/76	6	10	0.5	10.2	6.9	153.4
31	5/16/76	8	50	0.0	10.2	6.9	153.4
31	5/16/76	9	45	0.3	10.4	7.1	153.7
31	5/16/76	10	30	0.0	10.4	7.1	153.7
31	5/16/76	11	10	0.4	10.7	7.4	153.9
31	5/16/76	12	30	0.2	10.9	7.6	154.2
31	5/16/76	12	56	0.6	11.2	7.9	154.4
31	5/16/76	13	10	6.5	12.7	9.4	156.0
31	5/16/76	13	33	2.0	13.5	10.2	156.7
31	5/16/76	13	40	0.0	13.5	10.2	156.7
31	5/16/76	13	58	2.5	14.2	10.9	157.5
31	5/16/76	14	10	6.4	15.5	12.2	158.7
31	5/16/76	14	50	3.8	18.0	14.7	161.3
31	5/16/76	15	0	4.6	18.8	15.5	162.0
31	5/16/76	15	10	1.5	19.0	15.7	162.3
31	5/16/76	15	30	0.8	19.3	16.0	162.6
31	5/16/76	15	37	4.4	19.8	16.5	163.1
31	5/16/76	16	0	0.7	20.1	16.8	163.3
31	5/16/76	16	25	1.2	20.6	17.3	163.8
31	5/16/76	16	40	0.0	20.6	17.3	163.8
31	5/16/76	16	50	1.5	20.8	17.5	164.1
31	5/16/76	17	30	2.3	22.4	19.0	165.6
31	5/16/76	19	10	0.8	23.6	20.3	166.9
31	5/22/76	8	50	0.0	0.0	0.0	166.9
31	5/22/76	9	30	0.8	0.5	0.5	167.4
31	5/22/76	10	25	0.0	0.5	0.5	167.4
31	5/22/76	11	2	0.4	0.8	0.8	167.6
31	5/22/76	11	6	7.6	1.3	1.3	168.1
31	5/22/76	11	20	2.2	1.8	1.8	168.7
31	5/22/76	11	55	3.0	3.6	3.6	170.4
31	5/22/76	12	0	6.1	4.1	4.1	170.9
31	5/22/76	12	27	2.8	5.3	5.3	172.2
31	5/22/76	12	47	2.3	6.1	6.1	173.0
31	5/22/76	12	53	2.5	6.3	6.3	173.2
31	5/22/76	13	14	1.5	6.9	6.9	173.7
31	5/22/76	13	17	5.1	7.1	7.1	174.0
31	5/22/76	13	20	10.2	7.6	7.6	174.5
31	5/22/76	13	45	3.7	9.1	9.1	176.0
31	5/22/76	14	20	0.4	9.4	9.4	176.3

TABLE B1- 1. CONTINUED

GAGE	DATE	HOUR	MIN	PRECIP INTENSITY MM/HR	ACCUMULATED STORM MM	PRECIPITATION DAY MM	PRECIPITATION YEAR MM
31	5/22/76	13	30	-0.3	9.7	9.7	176.5
31	5/22/76	14	58	0.2	9.9	9.9	176.8
31	5/22/76	15	15	1.8	10.4	10.4	177.3
31	5/22/76	16	30	0.2	10.7	10.7	177.5
31	5/22/76	19	30	0.0	10.7	10.7	177.5
31	5/22/76	20	40	1.1	11.9	11.9	178.8
31	5/22/76	21	20	0.4	12.2	12.2	179.1
31	5/22/76	21	25	3.0	12.4	12.4	179.3
31	5/22/76	22	40	0.2	12.7	12.7	179.6
31	5/22/76	23	20	0.4	13.0	13.0	179.8
31	5/22/76	23	40	1.5	13.5	13.5	180.3
31	5/23/76	0	40	0.0	13.5	0.0	180.3
31	5/23/76	1	0	0.8	13.7	0.3	180.6
31	5/23/76	2	0	0.3	14.0	0.5	180.8
31	5/23/76	3	40	0.2	14.2	0.8	181.1
31	5/23/76	4	0	0.8	14.5	1.0	181.4
31	5/23/76	6	10	0.0	14.5	1.0	181.4
31	5/23/76	7	10	0.8	15.2	1.8	182.1
31	5/23/76	8	28	0.2	15.5	2.0	182.4
31	5/23/76	8	30	15.2	16.0	2.5	182.9
31	5/28/76	19	25	0.0	0.0	0.0	182.9
31	5/28/76	19	29	49.5	3.3	3.3	186.2
31	5/28/76	21	53	0.3	4.1	4.1	186.9
31	5/28/76	21	56	5.1	4.3	4.3	187.2
31	5/28/76	22	0	19.0	5.6	5.6	188.5
31	5/28/76	22	3	5.1	5.8	5.8	188.7
31	5/28/76	22	54	0.0	5.8	5.8	188.7
31	5/28/76	22	58	11.4	6.6	6.6	189.5
31	5/28/76	23	39	0.7	7.1	7.1	190.0
31	5/28/76	24	0	0.7	7.4	7.4	190.2
31	5/29/76	0	26	0.0	7.4	0.0	190.2
31	5/29/76	0	33	2.2	7.6	0.3	190.5
31	5/29/76	0	36	5.1	7.9	0.5	190.8
31	5/29/76	0	53	0.0	7.9	0.5	190.8
31	5/29/76	0	57	11.4	8.6	1.3	191.5
31	5/29/76	1	3	2.5	8.9	1.5	191.8
31	5/29/76	5	50	0.1	9.1	1.8	192.0
31	5/29/76	5	53	5.1	9.4	2.0	192.3
31	5/29/76	5	54	15.2	9.7	2.3	192.5
31	5/29/76	5	56	7.6	9.9	2.5	192.8
31	5/29/76	5	59	55.9	12.7	5.3	195.6
31	5/29/76	6	52	0.9	13.5	6.1	196.3
31	5/29/76	6	56	0.0	13.5	6.1	196.3
31	5/29/76	6	59	45.7	15.7	8.4	198.6
31	5/29/76	7	2	10.2	16.3	8.9	199.1
31	5/29/76	7	7	6.1	16.8	9.4	199.6
31	5/29/76	7	10	50.8	19.3	11.9	202.2
31	5/29/76	7	13	20.3	20.3	13.0	203.2
31	5/29/76	7	16	5.1	20.6	13.2	203.5
31	5/29/76	7	20	15.2	21.6	14.2	204.5
31	5/29/76	7	24	3.8	21.8	14.5	204.7
31	6/10/76	4	25	0.0	0.0	0.0	204.7
31	6/10/76	4	26	126.8	2.1	2.1	206.8
31	6/10/76	4	30	4.0	2.4	2.4	207.1
31	6/10/76	4	39	1.8	2.6	2.6	207.4
31	6/10/76	4	44	15.8	4.0	4.0	208.7
31	6/10/76	4	54	1.6	4.2	4.2	208.9
31	6/10/76	5	4	1.6	4.5	4.5	209.2
31	6/10/76	5	9	41.2	7.9	7.9	212.6
31	6/10/76	5	13	15.8	9.0	9.0	213.7
31	6/10/76	5	20	2.3	9.2	9.2	214.0
31	6/10/76	6	2	0.0	9.2	9.2	214.0
31	6/10/76	6	30	2.8	10.6	10.6	215.3
31	6/10/76	6	40	4.8	11.4	11.4	216.1
31	6/10/76	7	0	1.6	11.9	11.9	216.6
31	6/10/76	7	34	2.3	13.2	13.2	217.9
31	6/12/76	20	2	0.0	0.0	0.0	217.9
31	6/12/76	20	4	36.8	1.2	1.2	219.2
31	6/12/76	20	7	19.6	2.2	2.2	220.1
31	6/12/76	20	14	27.3	5.4	5.4	223.3
31	6/12/76	20	18	14.7	6.4	6.4	224.3
31	6/12/76	20	21	4.9	6.6	6.6	224.5
31	6/12/76	20	23	14.7	7.1	7.1	225.0
31	6/12/76	20	26	4.9	7.4	7.4	225.3
31	6/12/76	20	31	14.7	8.6	8.6	226.5
31	6/12/76	20	32	29.4	9.1	9.1	227.0
31	6/12/76	20	34	7.4	9.3	9.3	227.2
31	6/12/76	20	36	14.7	9.8	9.8	227.7
31	6/12/76	20	43	12.6	11.3	11.3	229.2
31	6/12/76	20	46	9.8	11.8	11.8	229.7
31	6/12/76	20	49	19.6	12.7	12.7	230.7
31	6/12/76	20	57	5.5	13.5	13.5	231.4
31	6/12/76	21	14	1.7	14.0	14.0	231.9
31	6/13/76	18	19	0.0	0.0	0.0	231.9
31	6/13/76	18	27	18.9	2.5	2.5	234.4
31	6/13/76	18	30	85.8	6.8	6.8	238.7
31	6/13/76	18	37	45.4	12.1	12.1	244.0
31	6/13/76	18	45	17.0	14.4	14.4	246.3
31	6/13/76	18	55	22.7	18.2	18.2	250.1
31	6/13/76	19	3	15.1	20.2	20.2	252.1
31	6/13/76	19	5	7.6	20.4	20.4	252.3
31	6/13/76	19	7	7.6	20.7	20.7	252.6
31	6/13/76	19	16	3.4	21.2	21.2	253.1
31	6/13/76	19	22	5.0	21.7	21.7	253.6
31	6/13/76	19	23	30.3	22.2	22.2	254.1
31	6/13/76	19	38	8.1	24.2	24.2	256.1
31	6/13/76	19	39	45.4	25.0	25.0	256.9
31	6/13/76	19	45	2.5	25.2	25.2	257.1
31	6/13/76	20	0	6.1	26.7	26.7	258.6
31	6/13/76	20	2	15.1	27.2	27.2	259.1
31	6/13/76	20	10	5.7	28.0	28.0	259.9

TABLE 81- 1. CONTINUED

GAGE	DATE	HOUR	MIN	PRECIP INTENSITY MM/HR	ACCUMULATED STORM MM	PRECIPITATION DAY MM	PRECIPITATION YEAR MM
31	6/13/76	20	17	8.6	29.0	29.0	260.9
31	6/13/76	20	21	3.8	29.3	29.3	261.2
31	6/13/76	20	23	15.1	29.8	29.8	261.7
31	6/13/76	20	27	3.8	30.0	30.0	261.9
31	6/13/76	20	33	10.1	31.0	31.0	262.9
31	6/13/76	20	34	15.1	31.3	31.3	263.2
31	6/13/76	20	36	7.6	31.5	31.5	263.4
31	6/13/76	20	40	7.6	32.0	32.0	263.9
31	6/13/76	20	45	12.1	33.0	33.0	264.9
31	6/13/76	21	0	7.1	34.8	34.8	266.7
31	6/13/76	21	7	6.5	35.6	35.6	267.5
31	6/13/76	21	13	5.0	36.1	36.1	268.0
31	6/13/76	22	13	0.8	36.8	36.8	268.7
31	6/24/76	8	58	0.0	0.0	0.0	268.7
31	6/24/76	9	7	3.3	0.5	0.5	269.2
31	6/24/76	9	14	2.1	0.7	0.7	269.5
31	6/24/76	9	20	4.9	1.2	1.2	270.0
31	6/24/76	9	30	1.5	1.5	1.5	270.2
31	6/24/76	9	32	7.4	1.7	1.7	270.5
31	6/24/76	9	39	4.2	2.2	2.2	271.0
31	6/24/76	9	41	7.4	2.5	2.5	271.2
31	6/24/76	9	58	2.6	3.2	3.2	271.9
31	6/24/76	10	6	7.4	4.2	4.2	272.9
31	6/24/76	10	16	4.5	4.9	4.9	273.7
31	6/24/76	10	19	24.7	6.2	6.2	274.9
31	6/24/76	10	25	12.4	7.4	7.4	276.2
31	6/24/76	10	33	1.9	7.7	7.7	276.4
31	6/24/76	10	42	4.9	8.4	8.4	277.1
31	6/24/76	10	44	7.4	8.7	8.7	277.4
31	6/24/76	10	54	1.5	8.9	8.9	277.6
31	6/24/76	11	4	4.5	9.7	9.7	278.4
31	6/25/76			NO DATA	0.0	0.0	278.4
31	6/25/76			NO DATA	1.3	1.3	279.6
31	6/26/76			NO DATA	0.0	0.0	279.6
31	6/26/76			NO DATA	3.0	3.0	282.7
31	6/29/76	5	18	0.0	0.0	0.0	282.7
31	6/29/76	5	48	2.4	1.2	1.2	283.9
31	6/29/76	5	53	11.8	2.2	2.2	284.9
31	6/29/76	6	5	1.2	2.4	2.4	285.1
31	6/29/76	6	13	3.7	2.9	2.9	285.6
31	6/29/76	6	25	1.2	3.2	3.2	285.9
31	6/29/76	6	35	2.9	3.7	3.7	286.4
31	6/29/76	7	5	0.0	3.7	3.7	286.4
31	6/29/76	7	8	24.5	4.9	4.9	287.6
31	6/29/76	7	10	22.0	5.6	5.6	288.3
31	6/29/76	7	12	7.3	5.9	5.9	288.6
31	6/29/76	7	13	44.1	6.6	6.6	289.3
31	6/29/76	7	22	1.6	6.9	6.9	289.6

GAGE	DATE	HOUR	MIN	PRECIP INTENSITY MM/HR	ACCUMULATED STORM MM	PRECIPITATION DAY MM	PRECIPITATION YEAR MM
31	7/16/76			NO DATA	0.0	0.0	289.6
31	7/16/76			NO DATA	1.0	1.0	290.6
31	7/20/76			NO DATA	0.0	0.0	290.6
31	7/20/76			NO DATA	0.5	0.5	291.1
31	7/20/76			NO DATA	0.0	0.5	291.1
31	7/20/76			NO DATA	4.3	4.8	295.4
31	7/26/76			NO DATA	0.0	0.0	295.4
31	7/26/76			NO DATA	0.8	0.8	296.2
31	7/28/76	2	0	0.0	0.0	0.0	296.2
31	7/28/76	2	1	76.2	1.3	1.3	297.4
31	7/28/76	2	4	15.2	2.0	2.0	298.2
31	7/28/76	2	6	7.6	2.3	2.3	298.4
31	7/28/76	2	10	11.4	3.0	3.0	299.2
31	7/28/76	2	16	7.6	3.8	3.8	300.0
31	7/28/76	2	20	30.5	5.8	5.8	302.0
31	7/28/76	2	24	11.4	6.6	6.6	302.8
31	7/28/76	2	27	91.4	11.2	11.2	307.3
31	7/28/76	2	28	91.4	12.7	12.7	308.9
31	7/28/76	2	30	45.7	14.2	14.2	310.4
31	7/28/76	2	35	18.3	15.7	15.7	311.9
31	7/28/76	2	37	76.2	18.3	18.3	314.4
31	7/28/76	2	39	38.1	19.6	19.6	315.7
31	7/28/76	2	40	76.2	20.8	20.8	317.0
31	7/28/76	2	44	19.1	22.1	22.1	318.3
31	7/28/76	2	50	10.2	23.1	23.1	319.3
31	7/28/76	2	54	3.8	23.4	23.4	319.5
31	7/28/76	2	58	7.6	23.9	23.9	320.0
31	7/28/76	3	9	8.3	25.4	25.4	321.6
31	7/28/76	3	13	3.8	25.7	25.7	321.8
31	7/28/76	3	20	6.5	26.4	26.4	322.6
31	7/28/76	3	45	6.7	29.2	29.2	325.4
31	7/28/76	4	17	3.8	31.2	31.2	327.4
31	7/28/76	4	40	2.7	32.3	32.3	328.4
31	7/28/76	6	18	0.2	32.5	32.5	328.7
31	7/28/76	7	20	1.0	33.5	33.5	329.7
31	8/11/76	16	39	0.0	0.0	0.0	329.7
31	8/11/76	17	40	3.2	3.3	3.3	333.0
31	8/13/76			NO DATA	0.0	0.0	333.0
31	8/13/76			NO DATA	1.0	1.0	334.0
31	8/17/76	3	20	0.0	0.0	0.0	334.0
31	8/17/76	3	24	3.8	0.3	0.3	334.2
31	8/17/76	3	30	12.5	1.5	1.5	335.5
31	8/17/76	3	35	18.0	3.0	3.0	337.0
31	8/17/76	3	43	9.4	4.3	4.3	338.2
31	8/17/76	3	50	38.6	8.8	8.8	342.8

TABLE B1- 1. CONCLUDED

GAGE	DATE	HOUR	MIN	PRECIP INTENSITY MM/HR	ACCUMULATED STORM MM	PRECIPITATION DAY MM	PRECIPITATION YEAR MM
31	8/17/76	4	3	1.2	9.0	9.0	343.0
31	8/17/76	4	15	3.8	9.8	9.8	343.8
31	8/17/76	4	20	18.0	11.3	11.3	345.3
31	8/17/76	4	24	11.3	12.0	12.0	346.0
31	8/17/76	4	40	0.9	12.3	12.3	346.3
31	8/17/76	4	42	7.5	12.5	12.5	346.5
31	8/17/76	5	0	0.8	12.8	12.8	346.8
31	8/17/76	5	35	1.3	13.5	13.5	347.5
31	8/17/76	5	52	2.6	14.3	14.3	348.3
31	8/17/76	6	3	1.4	14.5	14.5	348.5
31	8/17/76	6	50	2.6	16.5	16.5	350.5
31	9/13/76	2	0	0.0	0.0	0.0	350.5
31	9/13/76	2	3	22.4	1.1	1.1	351.6
31	9/13/76	2	6	22.4	2.2	2.2	352.7
31	9/13/76	2	7	33.5	2.8	2.8	353.3
31	9/13/76	2	8	16.8	3.1	3.1	353.6
31	9/13/76	2	14	2.8	3.4	3.4	353.9
31	9/13/76	2	16	50.3	5.0	5.0	355.5
31	9/13/76	2	40	1.4	5.6	5.6	356.1
31	9/13/76			NO DATA	0.0	5.6	356.1
31	9/13/76			NO DATA	2.5	8.1	358.6
31	9/19/76	13	57	0.0	0.0	0.0	358.6
31	9/19/76	13	59	22.4	0.7	0.7	359.4
31	9/19/76	14	0	44.9	1.5	1.5	360.1
31	9/19/76	14	2	7.5	1.7	1.7	360.4
31	9/19/76	15	40	0.3	2.2	2.2	360.9
31	9/19/76	19	39	0.0	2.2	2.2	360.9
31	9/19/76	19	42	5.0	2.5	2.5	361.1
31	9/19/76	19	44	29.9	3.5	3.5	362.1
31	9/19/76	19	46	74.7	6.0	6.0	364.6
31	9/19/76	19	48	37.4	7.2	7.2	365.9
31	9/19/76	19	54	12.5	8.5	8.5	367.1
31	9/19/76	20	3	5.0	9.2	9.2	367.9
31	9/19/76	20	17	2.1	9.7	9.7	368.3
31	9/19/76	20	23	2.5	10.0	10.0	368.6
31	9/19/76	20	27	3.7	10.2	10.2	368.8
31	9/19/76	20	41	3.2	11.0	11.0	369.6
31	9/19/76	20	44	10.0	11.5	11.5	370.1
31	9/19/76	21	3	2.4	12.2	12.2	370.8
31	9/19/76	21	10	4.3	12.7	12.7	371.3
31	9/19/76	21	25	2.0	13.2	13.2	371.8
31	9/27/76			NO DATA	0.0	0.0	371.8
31	9/27/76			NO DATA	0.5	0.5	372.3
31	10/ 4/76			NO DATA	0.0	0.0	372.3
31	10/ 4/76			NO DATA	4.1	4.1	376.4
31	10/ 5/76			NO DATA	0.0	0.0	376.4
31	10/ 5/76			NO DATA	2.5	2.5	378.9
31	10/18/76			NO DATA	0.0	0.0	378.9
31	10/18/76			NO DATA	2.0	2.0	381.0
31	10/19/76			NO DATA	0.0	0.0	381.0
31	10/19/76			NO DATA	2.0	2.0	383.0
31	10/24/76	9	10	0.0	0.0	0.0	383.0
31	10/24/76	9	20	5.2	0.9	0.9	383.9
31	10/24/76	12	25	0.0	0.9	0.9	383.9
31	10/24/76	12	30	17.4	2.3	2.3	385.3
31	10/24/76	12	46	10.9	5.2	5.2	388.2
31	10/24/76	13	10	1.5	5.8	5.8	388.8
31	10/24/76	13	57	0.4	6.1	6.1	389.1
31	10/24/76	14	10	2.7	6.7	6.7	389.7
31	10/24/76	16	8	0.3	7.3	7.3	390.3
31	10/24/76	16	30	2.4	8.1	8.1	391.1
31	10/30/76	1	0	0.0	0.0	0.0	391.1
31	10/30/76	2	10	0.4	0.5	0.5	391.6
31	10/30/76	3	0	0.3	0.8	0.8	391.9
31	10/30/76	4	10	0.4	1.3	1.3	392.4
31	10/30/76	7	40	0.0	1.3	1.3	392.4
31	10/30/76	8	50	0.4	1.8	1.8	392.9
31	10/30/76	10	0	1.1	3.0	3.0	394.2
31	10/30/76	11	40	0.9	4.6	4.6	395.7
31	10/30/76	12	10	1.0	5.1	5.1	396.2
31	10/30/76	12	50	0.0	5.1	5.1	396.2
31	10/30/76	14	0	0.7	5.8	5.8	397.0
31	10/30/76	15	0	0.5	6.3	6.3	397.5
31	10/30/76	15	40	0.0	6.3	6.3	397.5
31	10/30/76	16	0	1.5	6.9	6.9	398.0
31	10/30/76	17	0	0.8	7.6	7.6	398.8

TABLE B1- 2. FOUR MILE CREEK WATERSHED PRECIPITATION DATA FOR 1976 GAGE 32

GAGE	DATE	HOUR	MIN	PRECIP INTENSITY MM/HR	ACCUMULATED PRECIPITATION STORM MM	DAY MM	YEAR MM
32	5/ 2/76			NO DATA	0.0	0.0	0.0
32	5/ 2/76			NO DATA	11.2	11.2	11.2
32	5/13/76			NO DATA	0.0	0.0	11.2
32	5/13/76			NO DATA	8.1	8.1	19.3
32	5/15/76	9	24	0.0	0.0	0.0	19.3
32	5/15/76	9	30	7.8	0.8	0.8	20.1
32	5/15/76	9	50	1.6	1.3	1.3	20.6
32	5/15/76	10	0	1.6	1.6	1.6	20.9
32	5/15/76	10	30	1.0	2.1	2.1	21.4
32	5/15/76	11	0	0.5	2.3	2.3	21.6
32	5/15/76	11	20	0.8	2.6	2.6	21.9
32	5/15/76	11	43	0.7	2.9	2.9	22.2
32	5/15/76	11	50	2.2	3.1	3.1	22.4
32	5/15/76	14	0	0.0	3.1	3.1	22.4
32	5/15/76	14	20	0.8	3.4	3.4	22.7
32	5/15/76	14	30	1.6	3.6	3.6	22.9
32	5/15/76	15	0	0.5	3.9	3.9	23.2
32	5/16/76	2	27	0.0	3.9	0.0	23.2
32	5/16/76	3	0	0.9	4.4	0.5	23.7
32	5/16/76	4	20	0.4	4.9	1.0	24.2
32	5/16/76	4	30	3.1	5.5	1.6	24.8
32	5/16/76	4	50	2.3	6.2	2.3	25.5
32	5/16/76	5	15	1.2	6.8	2.9	26.1
32	5/16/76	5	30	3.1	7.5	3.6	26.8
32	5/16/76	6	0	0.5	7.8	3.9	27.1
32	5/16/76	12	0	0.0	7.8	3.9	27.1
32	5/16/76	12	10	1.6	8.0	4.2	27.4
32	5/16/76	12	20	1.6	8.3	4.4	27.6
32	5/16/76	12	40	2.3	9.1	5.2	28.4
32	5/16/76	13	20	3.9	11.7	7.8	31.0
32	5/16/76	13	40	2.3	12.5	8.6	31.8
32	5/16/76	14	0	1.6	13.0	9.1	32.3
32	5/16/76	14	10	7.8	14.3	10.4	33.6
32	5/16/76	14	20	6.2	15.3	11.4	34.6
32	5/16/76	15	0	2.7	17.1	13.2	36.4
32	5/16/76	15	10	1.6	17.4	13.5	36.7
32	5/16/76	16	40	0.5	18.2	14.3	37.5
32	5/16/76	17	0	0.8	18.4	14.5	37.7
32	5/16/76	18	10	2.7	21.6	17.7	40.9
32	5/16/76	19	0	1.9	23.1	19.2	42.4
32	5/16/76	19	20	0.8	23.4	19.5	42.7
32	5/22/76	9	0	0.0	0.0	0.0	42.7
32	5/22/76	9	25	1.8	0.8	0.8	43.4
32	5/22/76	10	30	0.2	1.0	1.0	43.7
32	5/22/76	10	39	1.7	1.3	1.3	43.9
32	5/22/76	10	43	7.6	1.8	1.8	44.4
32	5/22/76	11	0	0.9	2.0	2.0	44.7
32	5/22/76	11	17	1.8	2.5	2.5	45.2
32	5/22/76	11	20	5.1	2.8	2.8	45.5
32	5/22/76	11	27	6.5	3.6	3.6	46.2
32	5/22/76	11	40	2.3	4.1	4.1	46.7
32	5/22/76	11	50	1.5	4.3	4.3	47.0
32	5/22/76	12	8	2.5	5.1	5.1	47.8
32	5/22/76	12	10	7.6	5.3	5.3	48.0
32	5/22/76	12	30	1.5	5.8	5.8	48.5
32	5/22/76	12	43	1.2	6.1	6.1	48.8
32	5/22/76	13	3	3.0	7.1	7.1	49.8
32	5/22/76	13	40	0.8	7.6	7.6	50.3
32	5/22/76	14	0	0.8	7.9	7.9	50.5
32	5/22/76	18	0	0.0	7.9	7.9	50.5
32	5/22/76	18	30	0.5	8.1	8.1	50.8
32	5/22/76	19	30	0.0	8.1	8.1	50.8
32	5/22/76	20	0	1.0	8.6	8.6	51.3
32	5/22/76	20	30	0.5	8.9	8.9	51.6
32	5/22/76	21	0	0.5	9.1	9.1	51.8
32	5/22/76	22	0	0.5	9.7	9.7	52.3
32	5/22/76	22	30	1.0	10.2	10.2	52.8
32	5/23/76	3	30	0.1	10.4	0.3	53.1
32	5/23/76	4	30	0.5	10.9	0.8	53.6
32	5/23/76	6	0	0.3	11.4	1.3	54.1
32	5/23/76	7	0	0.5	11.9	1.8	54.6
32	5/23/76	10	0	0.2	12.4	2.3	55.1
32	5/28/76	22	45	0.0	0.0	0.0	55.1
32	5/28/76	22	46	32.0	0.5	0.5	55.7
32	5/28/76	22	56	1.6	0.8	0.8	55.9
32	5/28/76	23	1	6.4	1.3	1.3	56.5
32	5/28/76	23	12	1.5	1.6	1.6	56.7
32	5/29/76	0	25	0.2	1.9	0.3	57.0
32	5/29/76	0	30	3.2	2.1	0.5	57.3
32	5/29/76	0	41	2.9	2.7	1.1	57.8
32	5/29/76	1	3	0.7	2.9	1.3	58.1
32	5/29/76	1	10	2.3	3.2	1.6	58.3
32	5/29/76	5	30	0.0	3.2	1.6	58.3
32	5/29/76	5	54	0.7	3.5	1.9	58.6
32	5/29/76	6	2	4.0	4.0	2.4	59.1
32	5/29/76	6	30	0.6	4.3	2.7	59.4
32	5/29/76	7	5	0.0	4.3	2.7	59.4
32	5/29/76	7	10	3.2	4.5	2.9	59.7
32	5/29/76	7	13	5.3	4.8	3.2	59.9
32	5/29/76	7	17	28.0	6.7	5.1	61.8
32	5/29/76	7	20	80.0	10.7	9.1	65.8
32	5/29/76	7	22	40.0	12.0	10.4	67.1
32	5/29/76	7	23	48.0	12.8	11.2	67.9
32	5/29/76	7	25	40.0	14.1	12.5	69.3
32	5/29/76	7	28	21.3	15.2	13.6	70.3
32	5/29/76	7	31	5.3	15.5	13.9	70.6
32	5/29/76	7	56	1.3	16.0	14.4	71.1
32	6/10/76	4	53	0.0	0.0	0.0	71.1
32	6/10/76	4	56	24.9	1.2	1.2	72.4

TABLE 81- 2. CONTINUED

GAGE	DATE	HOUR	MIN	PRECIP INTENSITY MM/HR	ACCUMULATED STORM MM	PRECIPITATION DAY MM	PRECIPITATION YEAR MM
32	6/10/76	4	59	24.9	2.5	2.5	73.6
32	6/10/76	5	1	37.3	3.7	3.7	74.9
32	6/10/76	5	3	52.3	5.5	5.5	76.6
32	6/10/76	5	10	17.1	7.5	7.5	78.6
32	6/10/76	5	19	3.3	8.0	8.0	79.1
32	6/10/76	5	22	0.0	8.0	8.0	79.1
32	6/10/76	5	28	5.0	8.5	8.5	79.6
32	6/10/76	6	0	0.5	8.7	8.7	79.8
32	6/10/76	6	20	1.5	9.2	9.2	80.3
32	6/10/76	6	30	1.5	9.5	9.5	80.6
32	6/10/76	6	40	4.5	10.2	10.2	81.3
32	6/10/76	7	0	3.0	11.2	11.2	82.3
32	6/10/76	7	10	1.5	11.5	11.5	82.6
32	6/10/76	7	20	3.0	11.9	11.9	83.1
32	6/10/76	7	40	1.5	12.4	12.4	83.6
32	6/12/76	20	12	0.0	0.0	0.0	83.6
32	6/12/76	20	16	23.3	1.6	1.6	85.1
32	6/12/76	20	33	16.4	6.2	6.2	89.8
32	6/12/76	20	45	12.9	8.8	8.8	92.4
32	6/12/76	20	52	26.6	11.9	11.9	95.5
32	6/12/76	20	57	9.3	12.7	12.7	96.2
32	6/12/76	21	7	3.1	13.2	13.2	96.8
32	6/12/76	21	30	0.7	13.5	13.5	97.0
32	6/12/76	22	10	0.8	14.0	14.0	97.5
32	6/13/76	18	25	0.0	0.0	0.0	97.5
32	6/13/76	18	27	15.8	0.5	0.5	98.1
32	6/13/76	18	38	35.9	7.1	7.1	104.6
32	6/13/76	18	40	63.2	9.2	9.2	106.7
32	6/13/76	18	46	31.6	12.4	12.4	109.9
32	6/13/76	18	50	11.8	13.2	13.2	110.7
32	6/13/76	18	53	36.8	15.0	15.0	112.5
32	6/13/76	18	55	23.7	15.8	15.8	113.3
32	6/13/76	18	57	55.3	17.6	17.6	115.2
32	6/13/76	19	2	12.6	18.7	18.7	116.2
32	6/13/76	19	9	13.5	20.3	20.3	117.8
32	6/13/76	19	12	10.5	20.8	20.8	118.3
32	6/13/76	19	18	2.6	21.1	21.1	118.6
32	6/13/76	19	34	21.7	26.8	26.8	124.4
32	6/13/76	19	36	7.9	27.1	27.1	124.6
32	6/13/76	20	2	3.6	28.7	28.7	126.2
32	6/13/76	20	8	13.2	30.0	30.0	127.5
32	6/13/76	20	17	10.5	31.6	31.6	129.1
32	6/13/76	20	22	28.4	34.0	34.0	131.5
32	6/13/76	21	20	8.4	42.1	42.1	139.6
32	6/13/76	21	25	6.3	42.6	42.6	140.2
32	6/13/76	22	20	1.1	43.7	43.7	141.2
32	6/24/76	8	59	0.0	0.0	0.0	141.2
32	6/24/76	9	6	2.2	0.3	0.3	141.5
32	6/24/76	9	26	1.6	0.8	0.8	142.0
32	6/24/76	9	30	7.9	1.3	1.3	142.5
32	6/24/76	9	40	3.1	1.8	1.8	143.1
32	6/24/76	9	52	3.9	2.6	2.6	143.8
32	6/24/76	10	3	7.2	3.9	3.9	145.2
32	6/24/76	10	6	5.2	4.2	4.2	145.4
32	6/24/76	10	10	11.8	5.0	5.0	146.2
32	6/24/76	10	21	2.9	5.5	5.5	146.7
32	6/24/76	10	25	11.8	6.3	6.3	147.5
32	6/24/76	10	32	4.5	6.8	6.8	148.0
32	6/24/76	10	55	2.7	7.9	7.9	149.1
32	6/25/76			NO DATA	0.0	0.0	149.1
32	6/25/76			NO DATA	1.0	1.0	150.1
32	6/26/76			NO DATA	0.0	0.0	150.1
32	6/26/76			NO DATA	1.5	1.5	151.6
32	6/29/76	5	10	0.0	0.0	0.0	151.6
32	6/29/76	5	30	1.7	0.6	0.6	152.2
32	6/29/76	5	41	1.5	0.8	0.8	152.5
32	6/29/76	5	46	0.0	0.8	0.8	152.5
32	6/29/76	6	0	7.1	2.5	2.5	154.1
32	6/29/76	6	9	3.7	3.0	3.0	154.7
32	6/29/76	6	14	6.6	3.6	3.6	155.2
32	6/29/76	6	20	5.5	4.1	4.1	155.8
32	6/29/76	6	30	3.3	4.7	4.7	156.3
32	6/29/76	7	0	1.1	5.2	5.2	156.9
32	6/29/76	7	10	0.0	5.2	5.2	156.9
32	6/29/76	7	16	8.3	6.1	6.1	157.7
32	6/29/76	7	20	4.1	6.3	6.3	158.0
32	7/16/76			NO DATA	0.0	0.0	158.0
32	7/16/76			NO DATA	0.5	0.5	158.5
32	7/20/76			NO DATA	0.0	0.0	158.5
32	7/20/76			NO DATA	1.0	1.0	159.5
32	7/20/76			NO DATA	0.0	1.0	159.5
32	7/20/76			NO DATA	4.8	5.8	164.3
32	7/26/76			NO DATA	0.0	0.0	164.3
32	7/26/76			NO DATA	1.3	1.3	165.6
32	7/28/76	2	27	0.0	0.0	0.0	165.6
32	7/28/76	2	29	15.6	0.5	0.5	166.1
32	7/28/76	2	31	39.0	1.8	1.8	167.4
32	7/28/76	2	34	15.6	2.6	2.6	168.2
32	7/28/76	2	35	46.8	3.4	3.4	169.0
32	7/28/76	2	37	15.6	3.9	3.9	169.5
32	7/28/76	2	41	62.4	8.1	8.1	173.7
32	7/28/76	2	44	20.8	9.1	9.1	174.7
32	7/28/76	2	49	40.5	12.5	12.5	178.1

TABLE B1- 2. CONTINUED

GAGE	DATE	HOUR	MIN	PRECIP INTENSITY MM/HR	ACCUMULATED STORM MM	PRECIPITATION DAY MM	PRECIPITATION YEAR MM
32	7/28/76	3	0	5.7	13.5	13.5	179.1
32	7/28/76	3	10	0.0	13.5	13.5	179.1
32	7/28/76	3	11	31.2	14.0	14.0	179.6
32	7/28/76	3	19	3.9	14.6	14.6	180.2
32	7/28/76	3	45	6.6	17.4	17.4	183.0
32	7/28/76	4	4	4.1	18.7	18.7	184.3
32	7/28/76	4	15	2.8	19.2	19.2	184.8
32	7/28/76	4	24	5.2	20.0	20.0	185.6
32	7/28/76	4	34	1.6	20.3	20.3	185.9
32	7/28/76	4	52	3.5	21.3	21.3	186.9
32	7/28/76	6	30	0.2	21.6	21.6	187.2
32	7/28/76	8	32	0.1	21.8	21.8	187.4
32	7/28/76	9	5	1.4	22.6	22.6	188.2
32	8/11/76			NO DATA	0.0	0.0	188.2
32	8/11/76			NO DATA	8.4	8.4	196.6
32	8/13/76			NO DATA	0.0	0.0	196.6
32	8/13/76			NO DATA	3.0	3.0	199.6
32	8/17/76			NO DATA	0.0	0.0	199.6
32	8/17/76			NO DATA	5.8	5.8	205.5
32	9/13/76			NO DATA	0.0	0.0	205.5
32	9/13/76			NO DATA	0.8	0.8	206.2
32	9/19/76	5	39	0.0	0.0	0.0	206.2
32	9/19/76	5	40	31.5	0.5	0.5	206.8
32	9/19/76	5	42	7.9	0.8	0.8	207.0
32	9/19/76	6	30	0.7	1.3	1.3	207.6
32	9/19/76	7	11	0.4	1.6	1.6	207.8
32	9/19/76	7	15	15.7	2.6	2.6	208.9
32	9/19/76	7	26	1.4	2.9	2.9	209.1
32	9/19/76	7	27	47.2	3.7	3.7	209.9
32	9/19/76	7	30	21.0	4.7	4.7	211.0
32	9/19/76	7	34	3.9	5.0	5.0	211.2
32	9/19/76	7	35	47.2	5.8	5.8	212.0
32	9/19/76	7	37	157.5	11.0	11.0	217.3
32	9/19/76	7	39	23.6	11.8	11.8	218.1
32	9/19/76	7	42	36.7	13.6	13.6	219.9
32	9/19/76	7	50	3.9	14.2	14.2	220.4
32	9/19/76	7	52	23.6	15.0	15.0	221.2
32	9/19/76	7	55	5.2	15.2	15.2	221.5
32	9/19/76	7	58	21.0	16.3	16.3	222.5
32	9/19/76	8	20	2.9	17.3	17.3	223.6
32	9/19/76	8	30	3.1	17.8	17.8	224.1
32	9/19/76	8	42	11.8	20.2	20.2	226.5
32	9/19/76	8	54	5.2	21.3	21.3	227.5
32	9/19/76	9	6	2.6	21.8	21.8	228.0
32	9/19/76	9	20	4.5	22.8	22.8	229.1
32	9/19/76	10	0	1.2	23.6	23.6	229.9
32	9/27/76			NO DATA	0.0	0.0	229.9
32	9/27/76			NO DATA	0.8	0.8	230.6
32	10/ 4/76	7	30	0.0	0.0	0.0	230.6
32	10/ 4/76	8	0	2.2	1.1	1.1	231.8
32	10/ 4/76	8	20	0.8	1.4	1.4	232.0
32	10/ 4/76	9	10	1.3	2.5	2.5	233.2
32	10/ 4/76	10	0	0.3	2.8	2.8	233.4
32	10/ 4/76	10	20	0.0	2.8	2.8	233.4
32	10/ 4/76	10	30	3.4	3.4	3.4	234.0
32	10/ 4/76	12	0	0.2	3.7	3.7	234.3
32	10/ 4/76	12	30	0.0	3.7	3.7	234.3
32	10/ 4/76	12	40	0.0	1.4	3.7	234.3
32	10/ 4/76	12	50	16.9	4.2	6.5	237.1
32	10/ 4/76	12	55	6.7	4.8	7.0	237.7
32	10/ 4/76	13	0	10.1	5.6	7.9	238.5
32	10/ 4/76	13	20	5.9	7.6	9.8	240.5
32	10/ 4/76	13	34	1.2	7.9	10.1	240.8
32	10/ 5/76			NO DATA	0.0	0.0	240.8
32	10/ 5/76			NO DATA	3.3	3.3	244.1
32	10/18/76			NO DATA	0.0	0.0	244.1
32	10/18/76			NO DATA	2.0	2.0	246.1
32	10/19/76			NO DATA	0.0	0.0	246.1
32	10/19/76			NO DATA	2.0	2.0	248.1
32	10/24/76	9	12	0.0	0.0	0.0	248.1
32	10/24/76	9	14	16.4	0.5	0.5	248.7
32	10/24/76	9	27	2.5	1.1	1.1	249.2
32	10/24/76	10	0	0.5	1.4	1.4	249.5
32	10/24/76	12	7	0.0	1.4	1.4	249.5
32	10/24/76	12	30	1.4	1.9	1.9	250.0
32	10/24/76	12	33	10.9	2.5	2.5	250.6
32	10/24/76	12	37	4.1	2.7	2.7	250.8
32	10/24/76	12	44	7.0	3.5	3.5	251.7
32	10/24/76	12	48	8.2	4.1	4.1	252.2
32	10/24/76	13	10	1.5	4.6	4.6	252.8
32	10/24/76	14	2	0.3	4.9	4.9	253.0
32	10/24/76	14	14	2.7	5.5	5.5	253.6
32	10/24/76	14	30	1.0	5.7	5.7	253.8
32	10/24/76	15	30	0.0	5.7	5.7	253.8
32	10/24/76	16	0	0.5	6.0	6.0	254.1
32	10/24/76	16	20	0.0	6.0	6.0	254.1
32	10/24/76	16	30	1.6	6.3	6.3	254.4
32	10/24/76	17	30	0.3	6.5	6.5	254.7
32	10/24/76	18	20	1.0	7.4	7.4	255.5
32	10/30/76	5	30	0.0	0.0	0.0	255.5
32	10/30/76	6	0	1.0	0.5	0.5	256.0
32	10/30/76	7	35	0.0	0.5	0.5	256.0

TABLE B1- 2. CONCLUDED

GAGE	DATE	HOUR	MIN	PRECIP INTENSITY MM/HR	ACCUMULATED STORM MM	PRECIPITATION DAY MM	PRECIPITATION YEAR MM
32	10/30/76	8	30	0.6	1.0	1.0	236.5
32	10/30/76	9	20	1.6	2.4	2.4	257.8
32	10/30/76	10	0	1.2	3.1	3.1	258.6
32	10/30/76	10	38	0.8	3.7	3.7	259.1
32	10/30/76	11	0	0.7	3.9	3.9	259.4
32	10/30/76	11	30	1.0	4.5	4.5	259.9
32	10/30/76	12	0	0.5	4.7	4.7	260.2
32	10/30/76	12	20	1.6	5.2	5.2	260.7
32	10/30/76	14	0	0.3	5.8	5.8	261.2
32	10/30/76	15	0	0.3	6.0	6.0	261.5
32	10/30/76	15	35	0.9	6.5	6.5	262.0
32	10/30/76	16	10	0.9	7.1	7.1	262.6
32	10/30/76	16	50	0.0	7.1	7.1	262.6
32	10/30/76	17	20	0.5	7.3	7.3	262.8
32	10/30/76	18	25	1.0	8.4	8.4	263.9

GAGE	DATE	HOUR	MIN	PRECIP INTENSITY MM/HR	ACCUMULATED STORM MM	PRECIPITATION DAY MM	PRECIPITATION YEAR MM

TABLE B1- 3. FOUR MILE CREEK WATERSHED PRECIPITATION DATA FOR 1976 GAGE 33

GAGE	DATE	HOUR	MIN	PRECIP INTENSITY MM/HR	ACCUMULATED STORM MM	PRECIPITATION DAY MM	PRECIPITATION YEAR MM
33	3/26/76			NO DATA	0.0	0.0	0.0
33	3/26/76			NO DATA	1.8	1.8	1.8
33	3/28/76			NO DATA	0.0	0.0	1.8
33	3/28/76			NO DATA	3.3	3.3	5.1
33	3/29/76	14	50	0.0	0.0	0.0	5.1
33	3/29/76	15	0	4.8	0.8	0.8	5.9
33	3/29/76	15	40	1.6	1.9	1.9	7.0
33	3/29/76	16	20	0.0	1.9	1.9	7.0
33	3/29/76	16	50	2.2	3.0	3.0	8.0
33	3/29/76	17	5	5.4	4.3	4.3	9.4
33	3/29/76	17	20	0.0	4.3	4.3	9.4
33	3/29/76	17	40	7.3	6.7	6.7	11.8
33	3/29/76	17	55	3.2	7.5	7.5	12.6
33	3/29/76	18	15	6.5	9.7	9.7	14.8
33	3/29/76	18	40	1.9	10.5	10.5	15.6
33	3/29/76	21	10	0.0	10.5	10.5	15.6
33	3/29/76	21	25	2.2	11.0	11.0	16.1
33	3/29/76	21	50	5.8	13.5	13.5	18.5
33	3/29/76	22	0	0.0	13.5	13.5	18.5
33	3/29/76	22	10	6.5	14.5	14.5	19.6
33	3/29/76	22	20	3.2	15.1	15.1	20.1
33	3/29/76	22	30	1.6	15.3	15.3	20.4
33	3/29/76	22	50	10.5	18.8	18.8	23.9
33	3/29/76	23	0	4.8	19.6	19.6	24.7
33	3/29/76	23	20	4.8	21.3	21.3	26.3
33	3/29/76	23	50	8.6	25.6	25.6	30.6
33	3/30/76	8	30	0.0	25.6	0.0	30.6
33	3/30/76	10	0	0.4	26.1	0.5	31.2
33	3/30/76	10	30	2.2	27.2	1.6	32.3
33	4/14/76	20	35	0.0	0.0	0.0	32.3
33	4/14/76	20	45	4.8	0.8	0.8	33.1
33	4/14/76	20	50	0.0	0.8	0.8	33.1
33	4/14/76	21	10	2.4	1.6	1.6	33.9
33	4/14/76	21	20	6.4	2.7	2.7	34.9
33	4/14/76	21	29	1.8	3.0	3.0	35.2
33	4/14/76	21	31	24.1	3.8	3.8	36.0
33	4/14/76	21	38	2.3	4.0	4.0	36.3
33	4/14/76	21	43	38.6	7.2	7.2	39.5
33	4/14/76	21	45	8.0	7.5	7.5	39.8
33	4/14/76	21	50	16.1	8.9	8.9	41.1
33	4/14/76	22	15	3.9	10.5	10.5	42.7
33	4/14/76	22	30	1.1	10.7	10.7	43.0
33	4/14/76	23	40	0.2	11.0	11.0	43.3
33	4/15/76	0	20	2.0	12.3	1.3	44.6
33	4/15/76	0	35	0.0	12.3	1.3	44.6
33	4/15/76	1	0	4.5	14.2	3.2	46.5
33	4/17/76	4	30	0.0	0.0	0.0	46.5
33	4/17/76	5	5	2.3	1.3	1.3	47.8
33	4/17/76	5	20	0.0	1.3	1.3	47.8
33	4/17/76	5	35	3.2	2.1	2.1	48.6
33	4/17/76	5	45	1.6	2.4	2.4	48.8
33	4/17/76	5	55	4.7	3.2	3.2	49.6
33	4/17/76	6	10	3.2	3.9	3.9	50.4
33	4/17/76	6	15	31.5	6.6	6.6	53.0
33	4/17/76	6	30	9.5	8.9	8.9	55.4
33	4/17/76	6	35	9.5	9.7	9.7	56.2
33	4/17/76	7	0	1.9	10.5	10.5	57.0
33	4/17/76	7	30	0.0	10.5	10.5	57.0
33	4/17/76	7	40	4.7	11.3	11.3	57.8
33	4/17/76	7	50	1.6	11.6	11.6	58.0
33	4/17/76	8	10	7.1	13.9	13.9	60.4
33	4/17/76	8	15	6.3	14.4	14.4	60.9
33	4/17/76	8	20	3.2	14.7	14.7	61.2
33	4/17/76	8	30	1.6	15.0	15.0	61.5
33	4/17/76	8	35	3.2	15.2	15.2	61.7
33	4/17/76	10	55	0.1	15.5	15.5	62.0
33	4/17/76	11	0	69.4	21.3	21.3	67.8
33	4/17/76	11	5	12.6	22.3	22.3	68.8
33	4/17/76	11	10	3.2	22.6	22.6	69.1
33	4/17/76	11	35	0.0	22.6	22.6	69.1
33	4/17/76	11	40	3.2	22.9	22.9	69.3
33	4/17/76	17	45	0.0	22.9	22.9	69.3
33	4/17/76	17	50	15.8	24.2	24.2	70.7
33	4/17/76	18	0	1.6	24.4	24.4	70.9
33	4/17/76	21	20	0.1	24.7	24.7	71.2
33	4/17/76	21	30	9.5	26.3	26.3	72.8
33	4/17/76	22	0	1.1	26.8	26.8	73.3
33	4/17/76	22	30	1.1	27.3	27.3	73.8
33	4/17/76	22	35	25.2	29.4	29.4	75.9
33	4/17/76	22	40	12.6	30.5	30.5	77.0
33	4/17/76	22	45	3.2	30.7	30.7	77.2
33	4/17/76	22	50	9.5	31.5	31.5	78.0
33	4/17/76	23	20	6.3	34.7	34.7	81.2
33	4/17/76	23	30	4.7	35.5	35.5	81.9
33	4/17/76	23	40	1.6	35.7	35.7	82.2
33	4/17/76	23	55	0.0	35.7	35.7	82.2
33	4/18/76	0	10	6.3	37.3	1.6	83.8
33	4/18/76	0	15	12.6	38.4	2.6	84.8
33	4/18/76	0	20	0.0	38.4	2.6	84.8
33	4/18/76	0	23	5.3	38.6	2.9	85.1
33	4/18/76	0	25	102.5	42.0	6.3	88.5
33	4/18/76	0	30	31.5	44.7	8.9	91.1
33	4/18/76	0	35	9.5	45.5	9.7	91.9
33	4/18/76	0	40	3.2	45.7	10.0	92.2
33	4/18/76	0	50	9.5	47.3	11.6	93.8
33	4/18/76	1	0	6.3	48.3	12.6	94.8
33	4/18/76	1	10	3.2	48.9	13.1	95.3
33	4/18/76	1	20	0.0	48.9	13.1	95.3
33	4/18/76	1	30	3.2	49.4	13.7	95.9
33	4/18/76	1	40	1.6	49.7	13.9	96.1

TABLE 81- 3. CONTINUED

GAGE	DATE	HOUR	MIN	PRECIP INTENSITY MM/HR	ACCUMULATED STORM MM	PRECIPITATION DAY MM	YEAR MM
33	4/18/76	1	50	1.6	49.9	14.2	96.4
33	4/18/76	2	10	0.8	50.2	14.4	96.7
33	4/18/76	2	40	2.1	51.2	15.5	97.7
33	4/18/76	2	50	1.6	51.5	15.8	98.0
33	4/18/76	3	20	1.6	52.3	16.6	98.8
33	4/18/76	3	25	6.3	52.8	17.1	99.3
33	4/18/76	3	30	3.2	53.1	17.3	99.6
33	4/18/76	3	40	1.6	53.3	17.6	99.8
33	4/18/76	3	50	3.2	53.9	18.1	100.3
33	4/18/76	4	0	1.6	54.1	18.4	100.6
33	4/18/76	4	10	3.2	54.6	18.9	101.1
33	4/18/76	4	20	7.9	56.0	20.2	102.4
33	4/18/76	4	30	3.2	56.5	20.8	103.0
33	4/18/76	4	40	7.9	57.8	22.1	104.3
33	4/18/76	4	50	1.6	58.1	22.3	104.5
33	4/18/76	5	0	1.6	58.3	22.6	104.8
33	4/18/76	5	55	0.0	58.3	22.6	104.8
33	4/18/76	6	20	2.5	59.4	23.6	105.9
33	4/18/76	6	30	3.2	59.9	24.2	106.4
33	4/18/76	6	50	0.0	59.9	24.2	106.4
33	4/18/76	7	0	1.6	60.2	24.4	106.6
33	4/18/76	7	10	1.6	60.4	24.7	106.9
33	4/18/76	7	30	1.6	61.0	25.2	107.4
33	4/18/76	7	50	0.8	61.2	25.5	107.7
33	4/20/76	11	15	0.0	0.0	0.0	107.7
33	4/20/76	11	20	6.4	0.5	0.5	108.2
33	4/20/76	11	27	2.3	0.8	0.8	108.5
33	4/20/76	11	30	5.3	1.1	1.1	108.8
33	4/20/76	11	40	1.6	1.3	1.3	109.0
33	4/20/76	12	0	1.6	1.9	1.9	109.6
33	4/20/76	12	10	1.6	2.1	2.1	109.8
33	4/20/76	12	18	2.0	2.4	2.4	110.1
33	4/20/76	12	30	1.3	2.7	2.7	110.4
33	4/20/76	12	50	1.6	3.2	3.2	110.9
33	4/20/76	13	0	1.6	3.5	3.5	111.2
33	4/20/76	13	10	3.2	4.0	4.0	111.7
33	4/20/76	13	20	4.8	4.8	4.8	112.5
33	4/20/76	13	40	1.6	5.3	5.3	113.0
33	4/20/76	14	0	1.6	5.9	5.9	113.6
33	4/20/76	14	8	4.0	6.4	6.4	114.1
33	4/20/76	14	15	2.3	6.7	6.7	114.4
33	4/20/76	14	17	8.0	6.9	6.9	114.6
33	4/20/76	14	25	0.0	6.9	6.9	114.6
33	4/20/76	14	35	3.2	7.5	7.5	115.1
33	4/20/76	14	48	1.2	7.7	7.7	115.4
33	4/20/76	14	57	3.5	8.3	8.3	115.9
33	4/20/76	15	2	0.0	8.3	8.3	115.9
33	4/20/76	15	43	5.1	11.7	11.7	119.4
33	4/20/76	16	7	3.3	13.0	13.0	120.7
33	4/20/76	16	10	10.6	13.6	13.6	121.3
33	4/20/76	16	30	3.2	14.6	14.6	122.3
33	4/20/76	16	50	2.4	15.4	15.4	123.1
33	4/20/76	17	0	1.6	15.7	15.7	123.4
33	4/20/76	17	12	1.3	16.0	16.0	123.7
33	4/20/76	17	14	16.0	16.5	16.5	124.2
33	4/20/76	17	50	4.9	19.4	19.4	127.1
33	4/20/76	18	10	4.0	20.8	20.8	128.5
33	4/20/76	18	30	2.4	21.6	21.6	129.3
33	4/20/76	18	48	0.9	21.8	21.8	129.5
33	4/20/76	19	0	2.7	22.4	22.4	130.1
33	4/20/76	19	30	0.5	22.6	22.6	130.3
33	4/20/76	19	50	2.4	23.4	23.4	131.1
33	4/20/76	20	27	0.9	24.0	24.0	131.7
33	4/20/76	20	30	5.3	24.2	24.2	131.9
33	4/20/76	21	20	0.3	24.5	24.5	132.2
33	4/20/76	21	40	0.8	24.8	24.8	132.5
33	4/20/76	21	42	8.0	25.0	25.0	132.7
33	4/20/76	21	49	2.3	25.3	25.3	133.0
33	4/20/76	21	58	0.0	25.3	25.3	133.0
33	4/20/76	22	8	1.6	25.6	25.6	133.3
33	4/20/76	23	5	0.3	25.8	25.8	133.5
33	4/21/76	0	30	0.2	26.1	0.3	133.8
33	4/21/76	1	0	0.5	26.4	0.5	134.0
33	4/21/76	4	40	0.1	26.6	0.8	134.3
33	4/21/76	11	0	0.0	26.9	1.1	134.6
33	4/21/76	15	0	0.0	26.9	1.1	134.6
33	4/21/76	15	3	16.0	27.7	1.9	135.4
33	4/23/76	5	10	0.0	0.0	0.0	135.4
33	4/23/76	5	20	3.2	0.5	0.5	135.9
33	4/23/76	5	28	2.0	0.8	0.8	136.2
33	4/23/76	7	45	0.0	0.8	0.8	136.2
33	4/23/76	7	58	3.7	1.6	1.6	137.0
33	4/23/76	8	1	48.3	4.0	4.0	139.4
33	4/23/76	8	6	32.2	6.7	6.7	142.1
33	4/23/76	8	11	3.2	7.0	7.0	142.4
33	4/23/76	8	16	12.9	8.0	8.0	143.4
33	4/23/76	8	23	2.3	8.3	8.3	143.7
33	4/23/76	8	28	6.4	8.9	8.9	144.2
33	4/23/76	8	33	3.2	9.1	9.1	144.5
33	4/23/76	8	37	20.1	10.5	10.5	145.8
33	4/23/76	8	39	0.0	10.5	10.5	145.8
33	4/23/76	8	41	24.1	11.3	11.3	146.6
33	4/23/76	8	44	5.4	11.5	11.5	146.9
33	4/23/76	8	47	21.5	12.6	12.6	148.0
33	4/23/76	8	55	10.1	14.0	14.0	149.3
33	4/23/76	9	2	2.3	14.2	14.2	149.6
33	4/23/76	9	20	8.0	16.6	16.6	152.0
33	4/23/76	9	22	16.1	17.2	17.2	152.6
33	4/23/76	10	12	6.4	22.5	22.5	157.9
33	4/23/76	10	14	16.1	23.1	23.1	158.5
33	4/23/76	10	20	2.7	23.3	23.3	158.7
33	4/23/76	10	40	0.8	23.6	23.6	159.0

TABLE B1- 3. CONTINUED

GAGE	DATE	HOUR	MIN	PRECIP INTENSITY MM/HR	ACCUMULATED STORM MM	PRECIPITATION DAY MM	PRECIPITATION YEAR MM
33	4/23/76	14	18	0.0	23.6	23.6	159.0
33	4/23/76	14	20	8.0	23.9	23.9	159.3
33	4/23/76			NO DATA	0.0	23.9	159.3
33	4/23/76			NO DATA	2.5	26.4	161.8
33	4/24/76	1	10	0.0	0.0	0.0	161.8
33	4/24/76	1	15	9.1	0.8	0.8	162.6
33	4/24/76	1	30	1.0	1.0	1.0	162.8
33	4/24/76	1	59	1.1	1.5	1.5	163.3
33	4/24/76	2	10	2.8	2.0	2.0	163.8
33	4/24/76	5	0	0.0	2.0	2.0	163.8
33	4/24/76	5	10	1.5	2.3	2.3	164.1
33	4/24/76	5	20	1.5	2.5	2.5	164.3
33	4/24/76	5	30	4.6	3.3	3.3	165.1
33	4/24/76	5	50	1.5	3.8	3.8	165.6
33	4/24/76	8	0	0.0	3.8	3.8	165.6
33	4/24/76	10	10	0.2	4.3	4.3	166.1
33	4/24/76	10	38	1.1	4.8	4.8	166.6
33	4/24/76	10	45	2.2	5.1	5.1	166.9
33	4/24/76	11	0	1.0	5.3	5.3	167.1
33	4/24/76	12	40	0.2	5.6	5.6	167.4
33	4/24/76	16	0	0.2	6.1	6.1	167.9
33	4/24/76	17	10	0.2	6.3	6.3	168.1
33	4/24/76	17	30	1.5	6.9	6.9	168.7
33	4/24/76	17	50	1.5	7.4	7.4	169.2
33	4/24/76	18	0	1.5	7.6	7.6	169.4
33	4/25/76			NO DATA	0.0	0.0	169.4
33	4/25/76			NO DATA	1.3	1.3	170.7
33	5/ 2/76	1	25	0.0	0.0	0.0	170.7
33	5/ 2/76	1	45	0.8	0.3	0.3	171.0
33	5/ 2/76	2	10	0.7	0.5	0.5	171.2
33	5/ 2/76	2	25	4.4	1.6	1.6	172.3
33	5/ 2/76	2	30	3.3	1.9	1.9	172.6
33	5/ 2/76	2	40	3.3	2.5	2.5	173.1
33	5/ 2/76	3	0	4.9	4.1	4.1	174.8
33	5/ 2/76	3	6	5.5	4.6	4.6	175.3
33	5/ 2/76	3	15	1.8	4.9	4.9	175.6
33	5/ 2/76	3	45	0.0	4.9	4.9	175.6
33	5/ 2/76	3	55	6.6	6.0	6.0	176.7
33	5/ 2/76	4	0	6.6	6.6	6.6	177.2
33	5/ 2/76	4	10	1.6	6.8	6.8	177.5
33	5/ 2/76	4	25	1.1	7.1	7.1	177.8
33	5/ 2/76	4	41	4.1	8.2	8.2	178.9
33	5/ 2/76	4	42	32.8	8.7	8.7	179.4
33	5/ 2/76	5	0	1.8	9.3	9.3	180.0
33	5/ 2/76	5	15	0.0	9.3	9.3	180.0
33	5/ 2/76	5	20	3.3	9.6	9.6	180.2
33	5/ 2/76	5	23	10.9	10.1	10.1	180.8
33	5/ 2/76	5	57	0.5	10.4	10.4	181.1
33	5/ 2/76	6	20	1.4	10.9	10.9	181.6
33	5/12/76	21	30	0.0	0.0	0.0	181.6
33	5/12/76	21	45	2.9	0.7	0.7	182.3
33	5/12/76	23	25	0.1	1.0	1.0	182.6
33	5/12/76	24	0	0.4	1.2	1.2	182.8
33	5/13/76	1	40	0.3	1.7	0.5	183.3
33	5/13/76	2	0	0.7	1.9	0.7	183.5
33	5/13/76	2	10	1.4	2.1	1.0	183.8
33	5/13/76	2	40	1.0	2.6	1.4	184.2
33	5/13/76	4	15	0.0	2.6	1.4	184.2
33	5/13/76	5	0	1.0	3.3	2.1	184.9
33	5/13/76	5	20	1.4	3.8	2.6	185.4
33	5/13/76	5	30	1.4	4.1	2.9	185.7
33	5/13/76	6	20	0.3	4.3	3.1	185.9
33	5/13/76	7	10	0.6	4.8	3.6	186.4
33	5/13/76	7	30	0.0	4.8	3.6	186.4
33	5/13/76	8	10	1.1	5.5	4.3	187.1
33	5/13/76	9	0	0.6	6.0	4.8	187.6
33	5/13/76	10	0	1.0	6.9	5.7	188.5
33	5/13/76	12	56	0.1	7.2	6.0	188.8
33	5/13/76	12	57	42.9	7.9	6.7	189.5
33	5/15/76	9	17	0.0	0.0	0.0	189.5
33	5/15/76	9	20	10.6	0.5	0.5	190.0
33	5/15/76	9	30	1.6	0.8	0.8	190.3
33	5/15/76	10	20	1.0	1.6	1.6	191.1
33	5/15/76	11	0	0.4	1.9	1.9	191.3
33	5/15/76	11	30	0.5	2.1	2.1	191.6
33	5/15/76	11	43	1.2	2.4	2.4	191.9
33	5/15/76	11	47	4.0	2.7	2.7	192.1
33	5/15/76	14	0	0.1	2.9	2.9	192.4
33	5/15/76	14	30	1.6	3.7	3.7	193.2
33	5/16/76	1	0	0.0	3.7	0.0	193.2
33	5/16/76	2	40	0.2	4.0	0.3	193.5
33	5/16/76	4	18	0.3	4.5	0.8	194.0
33	5/16/76	4	33	4.2	5.6	1.9	195.1
33	5/16/76	5	20	2.0	7.2	3.4	196.6
33	5/16/76	12	20	0.0	7.2	3.4	196.6
33	5/16/76	12	30	3.2	7.7	4.0	197.2
33	5/16/76	12	40	3.2	8.2	4.5	197.7
33	5/16/76	12	50	1.6	8.5	4.8	198.0
33	5/16/76	13	3	8.6	10.3	6.6	199.8
33	5/16/76	13	10	2.3	10.6	6.9	200.1
33	5/16/76	13	12	15.9	11.1	7.4	200.6
33	5/16/76	13	24	1.3	11.4	7.7	200.9
33	5/16/76	13	30	5.3	11.9	8.2	201.4
33	5/16/76	13	40	0.0	11.9	8.2	201.4
33	5/16/76	14	0	1.6	12.5	8.8	201.9
33	5/16/76	14	10	4.8	13.3	9.5	202.7
33	5/16/76	14	40	3.7	15.1	11.4	204.6
33	5/16/76	15	0	1.6	15.6	11.9	205.1

TABLE B1- 3. CONTINUED

GAGE	DATE	HOUR	MIN	PRECIP INTENSITY MM/HR	ACCUMULATED STORM MM	PRECIPITATION DAY MM	PRECIPITATION YEAR MM
33	5/16/76	15	10	1.6	15.9	12.2	205.4
33	5/16/76	17	0	0.3	16.4	12.7	205.9
33	5/16/76	17	30	1.1	17.0	13.3	206.5
33	5/16/76	18	10	0.4	17.2	13.5	206.7
33	5/16/76	18	20	1.6	17.5	13.8	207.0
33	5/16/76	19	0	0.8	18.0	14.3	207.5
33	5/22/76	10	7	0.0	0.0	0.0	207.5
33	5/22/76	10	10	15.6	0.8	0.8	208.3
33	5/22/76	10	30	0.8	1.0	1.0	208.6
33	5/22/76	10	35	6.2	1.6	1.6	209.1
33	5/22/76	11	20	0.7	2.1	2.1	209.6
33	5/22/76	11	27	2.2	2.3	2.3	209.9
33	5/22/76	11	39	5.2	3.4	3.4	210.9
33	5/22/76	11	41	15.6	3.9	3.9	211.4
33	5/22/76	11	50	5.2	4.7	4.7	212.2
33	5/22/76	11	57	2.2	4.9	4.9	212.4
33	5/22/76	11	58	31.2	5.5	5.5	213.0
33	5/22/76	12	22	1.3	6.0	6.0	213.5
33	5/22/76	12	23	31.2	6.5	6.5	214.0
33	5/22/76	12	50	0.6	6.8	6.8	214.3
33	5/22/76	13	7	2.7	7.5	7.5	215.0
33	5/22/76	13	8	15.6	7.8	7.8	215.3
33	5/22/76	14	0	0.3	8.0	8.0	215.6
33	5/22/76	16	3	0.1	8.3	8.3	215.8
33	5/22/76	16	4	31.1	8.8	8.8	216.3
33	5/22/76	20	20	0.0	8.8	8.8	216.3
33	5/22/76	22	0	0.5	9.6	9.6	217.1
33	5/23/76	2	0	0.2	10.4	0.8	217.9
33	5/23/76	3	30	0.2	10.6	1.0	218.2
33	5/23/76	4	10	0.4	10.9	1.3	218.4
33	5/23/76	4	20	1.6	11.2	1.6	218.7
33	5/23/76	7	0	0.2	11.7	2.1	219.2
33	5/28/76	19	30	0.0	0.0	0.0	219.2
33	5/28/76	19	40	6.4	1.1	1.1	220.3
33	5/28/76	20	28	0.0	1.1	1.1	220.3
33	5/28/76	20	29	15.9	1.3	1.3	220.5
33	5/28/76	21	58	0.2	1.6	1.6	220.8
33	5/28/76	21	59	31.8	2.1	2.1	221.3
33	5/28/76	22	5	5.3	2.6	2.6	221.8
33	5/28/76	22	39	0.0	2.6	2.6	221.8
33	5/28/76	22	44	9.5	3.4	3.4	222.6
33	5/28/76	22	54	0.0	3.4	3.4	222.6
33	5/28/76	23	5	2.9	4.0	4.0	223.2
33	5/28/76	23	7	39.7	5.3	5.3	224.5
33	5/28/76	23	15	4.0	5.8	5.8	225.0
33	5/28/76	23	16	31.8	6.4	6.4	225.6
33	5/28/76	24	0	0.4	6.6	6.6	225.8
33	5/29/76	0	30	0.0	6.6	0.0	225.8
33	5/29/76	0	58	0.6	6.9	0.3	226.1
33	5/29/76	1	10	1.3	7.1	0.5	226.3
33	5/29/76	1	20	1.6	7.4	0.8	226.6
33	5/29/76	5	50	0.1	7.7	1.1	226.9
33	5/29/76	6	50	0.3	7.9	1.3	227.1
33	5/29/76	6	55	3.2	8.2	1.6	227.4
33	5/29/76	7	6	20.2	11.9	5.3	231.1
33	5/29/76	7	12	7.9	12.7	6.1	231.9
33	5/29/76	7	15	37.1	14.6	7.9	233.8
33	5/29/76	7	20	63.6	19.9	13.2	239.1
33	5/29/76	7	25	143.0	31.8	25.2	251.0
33	5/29/76	7	28	79.4	35.7	29.1	254.9
33	5/29/76	7	32	15.9	36.8	30.2	256.0
33	5/29/76	7	40	4.0	37.3	30.7	256.5
33	6/10/76	4	27	0.0	0.0	0.0	256.5
33	6/10/76	4	28	65.3	1.1	1.1	257.6
33	6/10/76	4	35	2.3	1.4	1.4	257.9
33	6/10/76	4	37	8.2	1.6	1.6	258.2
33	6/10/76	4	45	12.2	3.3	3.3	259.8
33	6/10/76	4	56	0.0	3.3	3.3	259.8
33	6/10/76	5	2	27.2	6.0	6.0	262.5
33	6/10/76	5	10	10.2	7.3	7.3	263.9
33	6/10/76	6	0	0.7	7.9	7.9	264.4
33	6/10/76	6	40	2.0	9.3	9.3	265.8
33	6/10/76	7	10	2.7	10.6	10.6	267.1
33	6/10/76	7	26	3.1	11.4	11.4	268.0
33	6/12/76	20	5	0.0	0.0	0.0	268.0
33	6/12/76	20	6	47.6	0.8	0.8	268.8
33	6/12/76	20	11	9.5	1.6	1.6	269.6
33	6/12/76	20	15	39.7	4.2	4.2	272.2
33	6/12/76	20	30	10.6	6.9	6.9	274.8
33	6/12/76	20	38	9.9	8.2	8.2	276.2
33	6/12/76	20	50	14.6	11.1	11.1	279.1
33	6/12/76	20	55	3.2	11.4	11.4	279.3
33	6/12/76	21	5	1.6	11.6	11.6	279.6
33	6/12/76	21	10	6.4	12.2	12.2	280.1
33	6/12/76	21	46	0.9	12.7	12.7	280.7
33	6/13/76	18	18	0.0	0.0	0.0	280.7
33	6/13/76	18	22	7.7	0.5	0.5	281.2
33	6/13/76	18	25	46.4	2.8	2.8	283.5
33	6/13/76	18	30	34.0	5.7	5.7	286.3
33	6/13/76	18	35	37.1	8.8	8.8	289.4
33	6/13/76	18	37	38.7	10.0	10.0	290.7
33	6/13/76	18	44	11.0	11.3	11.3	292.0
33	6/13/76	18	47	41.2	13.4	13.4	294.1
33	6/13/76	18	54	17.7	15.5	15.5	296.1
33	6/13/76	19	3	6.9	16.5	16.5	297.2
33	6/13/76	19	13	1.5	16.7	16.7	297.4
33	6/13/76	19	15	7.7	17.0	17.0	297.7
33	6/13/76	19	17	38.7	18.3	18.3	299.0
33	6/13/76	19	22	12.4	19.3	19.3	300.0

TABLE B1- 3. CONTINUED

GAGE	DATE	HOUR	MIN	PRECIP INTENSITY MM/HR	ACCUMULATED STORM MM	PRECIPITATION DAY MM	PRECIPITATION YEAR MM
33	6/13/76	19	24	30.9	20.4	20.4	301.0
33	6/13/76	19	27	25.8	21.6	21.6	302.3
33	6/13/76	19	56	3.2	23.2	23.2	303.9
33	6/13/76	19	57	30.9	23.7	23.7	304.4
33	6/13/76	19	59	7.7	24.0	24.0	304.6
33	6/13/76	20	5	5.2	24.5	24.5	305.1
33	6/13/76	20	14	15.5	26.8	26.8	307.5
33	6/13/76	20	24	9.3	28.3	28.3	309.0
33	6/13/76	20	25	15.5	28.6	28.6	309.3
33	6/13/76	20	26	30.9	29.1	29.1	309.8
33	6/13/76	20	30	3.9	29.4	29.4	310.0
33	6/13/76	21	10	8.1	34.8	34.8	315.4
33	6/13/76	21	35	1.9	35.6	35.6	316.2
33	6/24/76	8	57	0.0	0.0	0.0	316.2
33	6/24/76	9	0	10.2	0.5	0.5	316.7
33	6/24/76	9	15	2.0	1.0	1.0	317.2
33	6/24/76	9	18	5.1	1.3	1.3	317.5
33	6/24/76	9	26	1.9	1.5	1.5	317.7
33	6/24/76	9	27	15.2	1.8	1.8	318.0
33	6/24/76	9	34	2.2	2.0	2.0	318.3
33	6/24/76	9	53	4.0	3.3	3.3	319.5
33	6/24/76	9	55	7.6	3.6	3.6	319.8
33	6/24/76	9	59	7.6	4.1	4.1	320.3
33	6/24/76	10	2	10.2	4.6	4.6	320.8
33	6/24/76	10	10	7.6	5.6	5.6	321.8
33	6/24/76	10	18	3.8	6.1	6.1	322.3
33	6/24/76	10	21	25.4	7.4	7.4	323.6
33	6/24/76	10	30	6.8	8.4	8.4	324.6
33	6/24/76	10	35	6.1	8.9	8.9	325.1
33	6/24/76	10	43	3.8	9.4	9.4	325.6
33	6/26/76			NO DATA	0.0	0.0	325.6
33	6/26/76			NO DATA	1.5	1.5	327.1
33	6/29/76	5	20	0.0	0.0	0.0	327.1
33	6/29/76	5	34	2.4	0.6	0.6	327.7
33	6/29/76	5	40	2.8	0.8	0.8	328.0
33	6/29/76	5	50	1.7	1.1	1.1	328.2
33	6/29/76	5	54	4.1	1.4	1.4	328.5
33	6/29/76	5	56	16.6	1.9	1.9	329.1
33	6/29/76	6	9	1.3	2.2	2.2	329.3
33	6/29/76	6	10	33.1	2.8	2.8	329.9
33	6/29/76	6	21	1.5	3.0	3.0	330.2
33	6/29/76	6	30	3.7	3.6	3.6	330.7
33	6/29/76	7	0	0.0	3.6	3.6	330.7
33	6/29/76	7	1	16.6	3.9	3.9	331.0
33	6/29/76	7	7	2.8	4.1	4.1	331.3
33	6/29/76	7	11	12.4	5.0	5.0	332.1
33	6/29/76	7	14	5.5	5.2	5.2	332.4
33	6/29/76	7	15	16.6	5.5	5.5	332.7
33	6/29/76	7	30	3.3	6.3	6.3	333.5

GAGE	DATE	HOUR	MIN	PRECIP INTENSITY MM/HR	ACCUMULATED STORM MM	PRECIPITATION DAY MM	PRECIPITATION YEAR MM
33	7/16/76			NO DATA	0.0	0.0	333.5
33	7/16/76			NO DATA	0.3	0.3	333.7
33	7/20/76			NO DATA	0.0	0.0	333.7
33	7/20/76			NO DATA	5.1	5.1	338.8
33	7/26/76			NO DATA	0.0	0.0	338.8
33	7/26/76			NO DATA	0.8	0.8	339.6
33	7/28/76	2	13	0.0	0.0	0.0	339.6
33	7/28/76	2	15	64.5	2.1	2.1	341.7
33	7/28/76	2	21	2.7	2.4	2.4	342.0
33	7/28/76	2	27	13.4	3.8	3.8	343.3
33	7/28/76	2	32	25.8	5.9	5.9	345.5
33	7/28/76	2	35	80.6	9.9	9.9	349.5
33	7/28/76	2	40	58.0	14.8	14.8	354.4
33	7/28/76	2	44	8.1	15.3	15.3	354.9
33	7/28/76	2	46	40.3	16.7	16.7	356.2
33	7/28/76	2	50	32.2	18.8	18.8	358.4
33	7/28/76	3	0	3.2	19.3	19.3	358.9
33	7/28/76	3	8	4.0	19.9	19.9	359.5
33	7/28/76	3	13	9.7	20.7	20.7	360.3
33	7/28/76	3	20	2.3	21.0	21.0	360.5
33	7/28/76	3	38	8.1	23.4	23.4	363.0
33	7/28/76	3	48	4.8	24.2	24.2	363.8
33	7/28/76	4	34	3.5	26.9	26.9	366.4
33	7/28/76	4	45	2.9	27.4	27.4	367.0
33	7/28/76	6	30	0.3	27.9	27.9	367.5
33	8/11/76			NO DATA	0.0	0.0	367.5
33	8/11/76			NO DATA	6.6	6.6	374.1
33	8/13/76			NO DATA	0.0	0.0	374.1
33	8/13/76			NO DATA	1.8	1.8	375.9
33	8/17/76			NO DATA	0.0	0.0	375.9
33	8/17/76			NO DATA	5.1	5.1	381.0
33	9/19/76			NO DATA	0.0	0.0	381.0
33	9/19/76			NO DATA	27.7	27.7	408.7
33	10/ 4/76			NO DATA	0.0	0.0	408.7
33	10/ 4/76			NO DATA	6.6	6.6	415.3
33	10/ 5/76			NO DATA	0.0	0.0	415.3
33	10/ 5/76			NO DATA	2.5	2.5	417.8
33	10/18/76			NO DATA	0.0	0.0	417.8
33	10/18/76			NO DATA	2.0	2.0	419.8
33	10/19/76			NO DATA	0.0	0.0	419.8
33	10/19/76			NO DATA	2.0	2.0	421.9

TABLE B1- 3. CONCLUDED

GAGE	DATE	HOUR	MIN	PRECIP INTENSITY MM/HR	ACCUMULATED STORM MM	PRECIPITATION DAY MM	PRECIPITATION YEAR MM
33	10/24/76	9	17	0.0	0.0	0.0	421.9
33	10/24/76	9	20	12.0	0.6	0.6	422.5
33	10/24/76	9	31	1.6	0.9	0.9	422.8
33	10/24/76	9	40	2.0	1.2	1.2	423.1
33	10/24/76	12	34	0.1	1.5	1.5	423.4
33	10/24/76	12	40	12.0	2.7	2.7	424.6
33	10/24/76	12	45	7.2	3.3	3.3	425.2
33	10/24/76	12	52	7.7	4.2	4.2	426.1
33	10/24/76	12	55	12.0	4.8	4.8	426.7
33	10/24/76	13	50	0.7	5.4	5.4	427.3
33	10/24/76	14	7	1.1	5.7	5.7	427.6
33	10/24/76	14	10	6.0	6.0	6.0	427.9
33	10/24/76	14	17	5.2	6.6	6.6	428.5
33	10/24/76	16	15	0.2	6.9	6.9	428.8
33	10/24/76	16	25	5.4	7.8	7.8	429.7
33	10/24/76	16	30	3.6	8.1	8.1	430.0
33	10/30/76	1	0	0.0	0.0	0.0	430.0
33	10/30/76	2	0	0.8	0.8	0.8	430.8
33	10/30/76	3	10	0.2	1.1	1.1	431.1
33	10/30/76	8	0	0.0	1.1	1.1	431.1
33	10/30/76	8	30	0.5	1.4	1.4	431.4
33	10/30/76	8	40	1.6	1.6	1.6	431.6
33	10/30/76	9	30	1.3	2.7	2.7	432.7
33	10/30/76	9	40	1.6	3.0	3.0	433.0
33	10/30/76	10	37	0.9	3.8	3.8	433.8
33	10/30/76	11	0	1.4	4.3	4.3	434.3
33	10/30/76	11	50	1.0	5.2	5.2	435.2
33	10/30/76	12	12	0.7	5.4	5.4	435.4
33	10/30/76	12	58	0.4	5.7	5.7	435.7
33	10/30/76	13	40	0.4	6.0	6.0	436.0
33	10/30/76	14	10	1.1	6.5	6.5	436.5
33	10/30/76	15	40	0.2	6.8	6.8	436.8
33	10/30/76	15	56	2.0	7.3	7.3	437.3
33	10/30/76	16	20	2.0	8.1	8.1	438.1

GAGE	DATE	HOUR	MIN	PRECIP INTENSITY MM/HR	ACCUMULATED STORM MM	PRECIPITATION DAY MM	PRECIPITATION YEAR MM

TABLE B1- 4. FOUR MILE CREEK WATERSHED PRECIPITATION DATA FOR 1976 GAGE 34

GAGE	DATE	HOUR	MIN	PRECIP INTENSITY MM/HR	ACCUMULATED STORM MM	PRECIPITATION DAY MM	PRECIPITATION YEAR MM
34	5/ 2/76			NO DATA	0.0	0.0	0.0
34	5/ 2/76			NO DATA	11.2	11.2	11.2
34	5/13/76			NO DATA	0.0	0.0	11.2
34	5/13/76			NO DATA	8.1	8.1	19.3
34	5/15/76	9	17	0.0	0.0	0.0	19.3
34	5/15/76	9	26	8.5	1.3	1.3	20.6
34	5/15/76	9	45	0.8	1.5	1.5	20.8
34	5/15/76	10	0	1.0	1.8	1.8	21.1
34	5/15/76	12	0	0.4	2.5	2.5	21.8
34	5/15/76	13	0	0.3	2.8	2.8	22.1
34	5/15/76	14	10	0.2	3.0	3.0	22.4
34	5/15/76	15	30	0.6	3.8	3.8	23.1
34	5/15/76	16	20	0.3	4.1	4.1	23.4
34	5/15/76	16	30	3.0	4.6	4.6	23.9
34	5/15/76	16	33	10.2	5.1	5.1	24.4
34	5/15/76	16	48	3.0	5.8	5.8	25.1
34	5/15/76	17	5	0.9	6.1	6.1	25.4
34	5/15/76	17	23	2.5	6.9	6.9	26.2
34	5/15/76	18	20	0.0	6.9	6.9	26.2
34	5/15/76	18	30	1.5	7.1	7.1	26.4
34	5/15/76	19	0	0.5	7.4	7.4	26.7
34	5/15/76	24	0	0.0	7.4	7.4	26.7
34	5/16/76	0	10	1.5	7.6	0.3	26.9
34	5/16/76	0	25	7.1	9.4	2.0	28.7
34	5/16/76	0	40	1.0	9.7	2.3	29.0
34	5/16/76	1	0	3.0	10.7	3.3	30.0
34	5/16/76	1	16	4.8	11.9	4.6	31.2
34	5/16/76	1	27	1.4	12.2	4.8	31.5
34	5/16/76	1	30	5.1	12.4	5.1	31.7
34	5/16/76	2	0	1.5	13.2	5.8	32.5
34	5/16/76	2	15	5.1	14.5	7.1	33.8
34	5/16/76	2	50	1.3	15.2	7.9	34.5
34	5/16/76	3	10	1.5	15.7	8.4	35.1
34	5/16/76	4	40	0.0	15.7	8.4	35.1
34	5/16/76	5	20	0.8	16.3	8.9	35.6
34	5/16/76	5	33	2.3	16.8	9.4	36.1
34	5/16/76	6	40	0.5	17.3	9.9	36.6
34	5/16/76	7	0	1.5	17.8	10.4	37.1
34	5/22/76	10	20	0.0	0.0	0.0	37.1
34	5/22/76	10	36	4.8	1.3	1.3	38.4
34	5/22/76	10	40	3.8	1.5	1.5	38.6
34	5/22/76	11	20	0.8	2.0	2.0	39.1
34	5/22/76	11	22	15.2	2.5	2.5	39.6
34	5/22/76	11	32	4.6	3.3	3.3	40.4
34	5/22/76	11	40	3.8	3.8	3.8	40.9
34	5/22/76	11	50	0.0	3.8	3.8	40.9
34	5/22/76	12	16	2.3	4.8	4.8	41.9
34	5/22/76	13	25	1.5	6.6	6.6	43.7
34	5/22/76	14	0	0.4	6.9	6.9	43.9
34	5/22/76	19	40	0.0	6.9	6.9	43.9
34	5/22/76	21	20	0.5	7.6	7.6	44.7
34	5/22/76	21	30	1.5	7.9	7.9	45.0
34	5/22/76	22	0	0.5	8.1	8.1	45.2
34	5/22/76	22	10	1.5	8.4	8.4	45.5
34	5/22/76	23	40	0.2	8.6	8.6	45.7
34	5/23/76	1	50	0.1	8.9	0.3	46.0
34	5/23/76	2	30	0.8	9.4	0.8	46.5
34	5/23/76	3	30	0.3	9.7	1.0	46.7
34	5/23/76	4	10	0.8	10.2	1.5	47.2
34	5/23/76	6	10	0.6	11.4	2.8	48.5
34	5/23/76	7	10	0.0	11.4	2.8	48.5
34	5/28/76	22	20	0.0	0.0	0.0	48.5
34	5/28/76	22	40	3.2	1.1	1.1	49.6
34	5/28/76	23	2	0.7	1.3	1.3	49.9
34	5/28/76	23	5	10.7	1.9	1.9	50.4
34	5/28/76	23	8	5.4	2.1	2.1	50.7
34	5/28/76	23	11	10.7	2.7	2.7	51.2
34	5/28/76	23	28	0.9	3.0	3.0	51.5
34	5/28/76	23	30	8.1	3.2	3.2	51.7
34	5/28/76	23	34	4.0	3.5	3.5	52.0
34	5/29/76	0	50	0.4	4.0	0.5	52.5
34	5/29/76	1	0	3.2	4.6	1.1	53.1
34	5/29/76	1	10	1.6	4.8	1.3	53.3
34	5/29/76	1	13	5.4	5.1	1.6	53.6
34	5/29/76	1	15	8.1	5.4	1.9	53.9
34	5/29/76	1	18	10.7	5.9	2.4	54.4
34	5/29/76	1	30	1.3	6.2	2.7	54.7
34	5/29/76	6	0	0.0	6.2	2.7	54.7
34	5/29/76	6	38	1.7	7.3	3.8	55.8
34	5/29/76	6	42	8.1	7.8	4.3	56.3
34	5/29/76	6	47	3.2	8.1	4.6	56.6
34	5/29/76	7	0	1.2	8.3	4.8	56.8
34	5/29/76	7	25	0.0	8.3	4.8	56.8
34	5/29/76	7	29	64.5	12.6	9.1	61.1
34	5/29/76	7	31	16.1	13.2	9.7	61.7
34	5/29/76	7	36	9.7	14.0	10.5	62.5
34	6/10/76	4	28	0.0	0.0	0.0	62.5
34	6/10/76	4	30	8.9	0.3	0.3	62.8
34	6/10/76	4	46	1.1	0.6	0.6	63.1
34	6/10/76	4	57	0.0	0.6	0.6	63.1
34	6/10/76	5	2	10.7	1.5	1.5	64.0
34	6/10/76	5	4	44.6	3.0	3.0	65.5
34	6/10/76	5	16	13.4	5.7	5.7	68.1
34	6/10/76	5	23	2.6	6.0	6.0	68.4
34	6/10/76	5	30	2.6	6.2	6.2	68.7
34	6/10/76	6	0	0.0	6.2	6.2	68.7
34	6/10/76	6	21	3.4	7.4	7.4	69.9
34	6/10/76	6	40	1.9	8.0	8.0	70.5
34	6/10/76	6	50	3.6	8.6	8.6	71.1

TABLE B1- 4. CONTINUED

GAGE	DATE	HOUR	MIN	PRECIP INTENSITY MM/HR	ACCUMULATED STORM MM	PRECIPITATION DAY MM	YEAR MM
34	6/10/76	6	59	2.0	8.9	8.9	71.4
34	6/10/76	7	10	3.2	9.5	9.5	72.0
34	6/10/76	7	23	4.1	10.4	10.4	72.9
34	6/12/76	20	20	0.0	0.0	0.0	72.9
34	6/12/76	20	42	16.2	5.9	5.9	78.8
34	6/12/76	20	45	0.0	5.9	5.9	78.8
34	6/12/76	20	49	20.2	7.3	7.3	80.2
34	6/12/76	20	51	24.3	8.1	8.1	81.0
34	6/12/76	20	58	11.6	9.4	9.4	82.3
34	6/12/76	21	3	6.5	10.0	10.0	82.9
34	6/12/76	21	10	2.3	10.3	10.3	83.2
34	6/12/76	21	18	6.1	11.1	11.1	84.0
34	6/12/76	22	0	1.2	11.9	11.9	84.8
34	6/13/76	18	28	0.0	11.9	0.0	84.8
34	6/13/76	18	34	8.1	12.7	0.8	85.6
34	6/13/76	18	36	40.5	14.0	2.2	86.9
34	6/13/76	18	42	27.0	16.7	4.9	89.6
34	6/13/76	18	43	113.4	18.6	6.7	91.5
34	6/13/76	18	45	24.3	19.4	7.6	92.3
34	6/13/76	18	50	29.2	21.9	10.0	94.8
34	6/13/76	18	53	32.4	23.5	11.6	96.4
34	6/13/76	18	57	28.3	25.4	13.5	98.3
34	6/13/76	19	3	16.2	27.0	15.1	99.9
34	6/13/76	19	11	8.1	28.1	16.2	101.0
34	6/13/76	19	15	20.2	29.4	17.5	102.3
34	6/13/76	19	25	4.9	30.2	18.4	103.1
34	6/13/76	19	35	17.8	33.2	21.3	106.1
34	6/13/76	19	38	0.0	33.2	21.3	106.1
34	6/13/76	19	41	5.4	33.5	21.6	106.4
34	6/13/76	19	51	4.9	34.3	22.4	107.2
34	6/13/76	19	58	6.9	35.1	23.2	108.0
34	6/13/76	20	23	6.5	37.8	25.9	110.7
34	6/13/76	20	25	24.3	38.6	26.7	111.5
34	6/13/76	21	24	7.7	46.2	34.3	119.1
34	6/13/76	22	9	0.7	46.7	34.8	119.6
34	6/13/76	22	12	5.4	47.0	35.1	119.9
34	6/13/76	22	25	1.2	47.2	35.4	120.1
34	6/24/76	9	57	0.0	0.0	0.0	120.1
34	6/24/76	10	0	0.0	0.0	0.0	120.1
34	6/24/76	10	7	4.7	0.6	0.6	120.7
34	6/24/76	10	10	22.0	1.7	1.7	121.8
34	6/24/76	10	15	6.6	2.2	2.2	122.3
34	6/24/76	10	20	26.4	4.4	4.4	124.5
34	6/24/76	10	25	13.2	5.5	5.5	125.6
34	6/24/76	10	40	4.4	6.6	6.6	126.7
34	6/26/76			NO DATA	0.0	0.0	126.7
34	6/26/76			NO DATA	1.5	1.5	128.3
34	6/29/76	5	20	0.0	0.0	0.0	128.3
34	6/29/76	5	32	1.8	0.4	0.4	128.6
34	6/29/76	5	34	52.6	2.1	2.1	130.4
34	6/29/76	6	0	1.6	2.8	2.8	131.1
34	6/29/76	6	8	2.6	3.2	3.2	131.4
34	6/29/76	6	12	15.8	4.2	4.2	132.5
34	6/29/76	6	27	4.2	5.3	5.3	133.5
34	6/29/76	6	32	8.4	6.0	6.0	134.2
34	6/29/76	6	43	1.9	6.3	6.3	134.6
34	6/29/76	6	55	1.8	6.7	6.7	134.9
34	6/29/76	6	57	10.5	7.0	7.0	135.3
34	6/29/76	7	7	0.0	7.0	7.0	135.3
34	6/29/76	7	23	1.3	7.4	7.4	135.6
34	7/20/76			NO DATA	0.0	0.0	135.6
34	7/20/76			NO DATA	2.5	2.5	138.2
34	7/20/76	16	10	0.0	0.0	2.5	138.2
34	7/20/76	16	13	45.4	2.3	4.8	140.4
34	7/20/76	16	39	0.0	2.3	4.8	140.4
34	7/20/76	16	40	27.2	2.7	5.3	140.9
34	7/20/76	18	15	0.0	2.7	5.3	140.9
34	7/20/76	18	37	2.5	3.6	6.2	141.8
34	7/20/76	18	41	13.6	4.5	7.1	142.7
34	7/20/76	19	0	5.7	6.3	8.9	144.5
34	7/26/76			NO DATA	0.0	0.0	144.5
34	7/26/76			NO DATA	0.8	0.8	145.3
34	7/28/76	2	33	0.0	0.0	0.0	145.3
34	7/28/76	2	39	64.5	6.5	6.5	151.7
34	7/28/76	2	42	61.4	9.5	9.5	154.8
34	7/28/76	2	45	30.7	11.1	11.1	156.3
34	7/28/76	2	47	9.2	11.4	11.4	156.7
34	7/28/76	2	53	43.0	15.7	15.7	161.0
34	7/28/76	2	55	18.4	16.3	16.3	161.6
34	7/28/76	3	6	3.4	16.9	16.9	162.2
34	7/28/76	3	13	5.3	17.5	17.5	162.8
34	7/28/76	3	17	9.2	18.1	18.1	163.4
34	7/28/76	3	40	8.0	21.2	21.2	166.5
34	7/28/76	3	50	5.5	22.1	22.1	167.4
34	7/28/76	4	0	5.5	23.0	23.0	168.3
34	7/28/76	4	11	5.0	24.0	24.0	169.2
34	7/28/76	4	20	4.1	24.6	24.6	169.9
34	7/28/76	4	45	0.0	23.3	24.6	169.9
34	7/28/76	4	56	16.8	26.4	27.6	172.9
34	8/11/76			NO DATA	0.0	0.0	172.9
34	8/11/76			NO DATA	9.1	9.1	182.1
34	8/13/76			NO DATA	0.0	0.0	182.1
34	8/13/76			NO DATA	0.5	0.5	182.6

TABLE B1- 4. CONCLUDED

GAGE	DATE	HOUR	MIN	PRECIP INTENSITY MM/HR	ACCUMULATED STORM MM	PRECIPITATION DAY MM	PRECIPITATION YEAR MM
34	8/17/76			NO DATA	3.3	3.3	185.9
34	9/13/76			NO DATA	0.0	0.0	185.9
34	9/13/76			NO DATA	0.5	0.5	186.4
34	9/19/76			NO DATA	0.0	0.0	186.4
34	9/19/76			NO DATA	14.7	14.7	201.1
34	9/27/76			NO DATA	0.0	0.0	201.1
34	9/27/76			NO DATA	1.8	1.8	202.9
34	10/ 4/76	7	40	0.0	0.0	0.0	202.9
34	10/ 4/76	8	50	1.3	1.5	1.5	204.4
34	10/ 4/76	9	0	0.0	1.5	1.5	204.4
34	10/ 4/76	9	5	3.6	1.8	1.8	204.7
34	10/ 4/76	9	22	1.0	2.1	2.1	205.0
34	10/ 4/76	10	10	0.7	2.7	2.7	205.6
34	10/ 4/76	10	30	0.9	3.0	3.0	205.9
34	10/ 4/76	12	40	0.0	3.0	3.0	205.9
34	10/ 4/76	12	55	3.6	3.9	3.9	206.8
34	10/ 4/76	13	0	0.0	3.9	3.9	206.8
34	10/ 4/76	13	5	7.1	4.4	4.4	207.3
34	10/ 4/76	13	15	1.8	4.7	4.7	207.6
34	10/ 4/76	13	19	8.9	5.3	5.3	208.2
34	10/ 4/76	13	25	3.0	5.6	5.6	208.5
34	10/ 4/76	13	30	3.6	5.9	5.9	208.8
34	10/ 4/76	13	40	3.6	6.5	6.5	209.4
34	10/ 4/76	14	0	0.9	6.8	6.8	209.7
34	10/ 4/76	14	30	0.6	7.1	7.1	210.0
34	10/ 5/76			NO DATA	0.0	0.0	210.0
34	10/ 5/76			NO DATA	4.1	4.1	214.1
34	10/18/76			NO DATA	0.0	0.0	214.1
34	10/18/76			NO DATA	2.0	2.0	216.1
34	10/19/76			NO DATA	0.0	0.0	216.1
34	10/19/76			NO DATA	2.0	2.0	218.1
34	10/24/76	9	10	0.0	0.0	0.0	218.1
34	10/24/76	9	20	8.8	1.5	1.5	219.6
34	10/24/76	9	45	1.4	2.1	2.1	220.2
34	10/24/76	11	27	0.2	2.4	2.4	220.5
34	10/24/76	11	30	5.9	2.7	2.7	220.8
34	10/24/76	12	29	0.3	2.9	2.9	221.1
34	10/24/76	12	38	3.9	3.5	3.5	221.7
34	10/24/76	12	47	7.9	4.7	4.7	222.9
34	10/24/76	13	0	1.4	5.0	5.0	223.1
34	10/24/76	13	17	2.1	5.6	5.6	223.7
34	10/24/76	13	26	2.0	5.9	5.9	224.0
34	10/24/76	14	5	0.0	5.9	5.9	224.0
34	10/24/76	14	20	1.2	6.2	6.2	224.3
34	10/24/76	15	55	0.2	6.5	6.5	224.6
34	10/24/76	16	25	1.8	7.4	7.4	225.5
34	10/30/76	9	0	0.0	0.0	0.0	225.5
34	10/30/76	9	27	2.6	1.2	1.2	226.7
34	10/30/76	9	40	1.8	1.6	1.6	227.1
34	10/30/76	10	42	0.8	2.4	2.4	227.9
34	10/30/76	11	3	1.1	2.7	2.7	228.3
34	10/30/76	11	40	1.3	3.5	3.5	229.0
34	10/30/76	12	35	1.3	4.7	4.7	230.2
34	10/30/76	13	53	0.6	5.5	5.5	231.0
34	10/30/76	15	52	0.8	7.1	7.1	232.6
34	10/30/76	16	24	2.9	8.6	8.6	234.1

TABLE B1- 5. FOUR MILE CREEK WATERSHED PRECIPITATION DATA FOR 1976 GAGE 35

GAGE	DATE	HOUR	MIN	PRECIP INTENSITY MM/HR	ACCUMULATED STORM MM	PRECIPITATION DAY MM	PRECIPITATION YEAR MM
35	3/26/76			NO DATA	0.0	0.0	0.0
35	3/26/76			NO DATA	2.3	2.3	2.3
35	3/28/76			NO DATA	0.0	0.0	2.3
35	3/28/76			NO DATA	3.6	3.6	5.8
35	3/29/76	14	0	0.0	0.0	0.0	5.8
35	3/29/76	14	50	0.7	0.6	0.6	6.4
35	3/29/76	15	0	8.0	1.4	1.4	7.2
35	3/29/76	15	10	5.0	2.2	2.2	8.1
35	3/29/76	15	20	1.7	2.5	2.5	8.3
35	3/29/76	15	50	0.6	2.8	2.8	8.6
35	3/29/76	16	30	0.0	2.8	2.8	8.6
35	3/29/76	16	55	1.3	3.3	3.3	9.2
35	3/29/76	17	0	10.0	4.2	4.2	10.0
35	3/29/76	17	10	3.3	4.7	4.7	10.6
35	3/29/76	17	25	0.0	4.7	4.7	10.6
35	3/29/76	17	40	2.2	5.3	5.3	11.1
35	3/29/76	17	50	1.7	5.6	5.6	11.4
35	3/29/76	18	0	5.0	6.4	6.4	12.2
35	3/29/76	18	10	5.0	7.2	7.2	13.1
35	3/29/76	18	20	1.7	7.5	7.5	13.3
35	3/29/76	20	50	0.3	8.3	8.3	14.2
35	3/29/76	21	0	5.0	9.2	9.2	15.0
35	3/29/76	21	10	1.7	9.4	9.4	15.3
35	3/29/76	21	20	0.0	9.4	9.4	15.3
35	3/29/76	21	30	3.3	10.0	10.0	15.8
35	3/29/76	21	35	6.7	10.6	10.6	16.4
35	3/29/76	21	40	0.0	10.6	10.6	16.4
35	3/29/76	21	50	10.0	12.2	12.2	18.1
35	3/29/76	22	5	8.9	14.4	14.4	20.3
35	3/29/76	22	50	4.4	17.8	17.8	23.6
35	3/29/76	23	0	6.7	18.9	18.9	24.7
35	3/29/76	23	10	1.7	19.2	19.2	25.0
35	3/30/76	5	0	0.0	19.4	0.3	25.3
35	3/30/76	6	0	0.3	19.7	0.6	25.6
35	3/30/76	7	0	0.6	20.3	1.1	26.1
35	3/30/76	8	0	0.6	20.8	1.7	26.7
35	4/14/76	20	30	0.0	0.0	0.0	26.7
35	4/14/76	21	15	0.7	0.5	0.5	27.2
35	4/14/76	21	25	42.5	7.6	7.6	34.3
35	4/14/76	21	30	3.1	7.9	7.9	34.5
35	4/14/76	21	43	1.2	8.1	8.1	34.8
35	4/14/76	21	45	31.5	9.2	9.2	35.8
35	4/14/76	21	50	15.7	10.5	10.5	37.2
35	4/14/76	22	0	6.3	11.5	11.5	38.2
35	4/14/76	22	20	2.4	12.3	12.3	39.0
35	4/14/76	22	40	0.8	12.6	12.6	39.3
35	4/14/76	23	20	0.0	12.6	12.6	39.3
35	4/14/76	23	30	1.6	12.8	12.8	39.5
35	4/14/76	23	40	0.0	12.8	12.8	39.5
35	4/14/76	23	50	3.1	13.4	13.4	40.0
35	4/14/76	24	0	3.1	13.9	13.9	40.6
35	4/15/76	0	25	1.3	14.4	0.5	41.1
35	4/15/76	0	50	1.3	14.9	1.0	41.6
35	4/15/76	1	5	5.2	16.3	2.4	42.9
35	4/17/76	4	0	0.0	0.0	0.0	42.9
35	4/17/76	4	40	2.4	1.6	1.6	44.5
35	4/17/76	4	50	1.6	1.9	1.9	44.8
35	4/17/76	5	0	1.6	2.1	2.1	45.0
35	4/17/76	5	5	3.2	2.4	2.4	45.3
35	4/17/76	5	25	2.4	3.2	3.2	46.1
35	4/17/76	5	35	0.0	3.2	3.2	46.1
35	4/17/76	5	40	3.2	3.4	3.4	46.4
35	4/17/76	5	50	0.0	3.4	3.4	46.4
35	4/17/76	5	55	6.4	4.0	4.0	46.9
35	4/17/76	6	0	9.5	4.8	4.8	47.7
35	4/17/76	6	5	9.5	5.6	5.6	48.5
35	4/17/76	6	10	6.4	6.1	6.1	49.0
35	4/17/76	6	15	19.0	7.7	7.7	50.6
35	4/17/76	6	20	3.2	7.9	7.9	50.9
35	4/17/76	6	40	1.6	8.5	8.5	51.4
35	4/17/76	6	50	3.2	9.0	9.0	51.9
35	4/17/76	7	5	1.1	9.3	9.3	52.2
35	4/17/76	7	15	3.2	9.8	9.8	52.7
35	4/17/76	7	30	1.1	10.1	10.1	53.0
35	4/17/76	7	35	25.4	12.2	12.2	55.1
35	4/17/76	7	40	12.7	13.2	13.2	56.2
35	4/17/76	7	50	1.6	13.5	13.5	56.4
35	4/17/76	8	0	1.6	13.8	13.8	56.7
35	4/17/76	8	5	9.5	14.6	14.6	57.5
35	4/17/76	10	30	0.1	14.8	14.8	57.7
35	4/17/76	10	40	1.6	15.1	15.1	58.0
35	4/17/76	10	45	41.3	18.5	18.5	61.4
35	4/17/76	10	50	50.8	22.8	22.8	65.7
35	4/17/76	10	55	12.7	23.8	23.8	66.7
35	4/17/76	11	0	3.2	24.1	24.1	67.0
35	4/17/76	17	40	0.0	24.1	24.1	67.0
35	4/17/76	17	55	1.1	24.3	24.3	67.3
35	4/17/76	18	0	3.2	24.6	24.6	67.5
35	4/17/76	18	10	0.0	24.6	24.6	67.5
35	4/17/76	18	40	0.5	24.9	24.9	67.8
35	4/17/76	18	50	1.6	25.1	25.1	68.1
35	4/17/76	21	30	0.0	25.1	25.1	68.1
35	4/17/76	22	15	0.4	25.4	25.4	68.3
35	4/17/76	22	20	12.7	26.5	26.5	69.4
35	4/17/76	22	30	6.3	27.5	27.5	70.4
35	4/17/76	22	40	3.2	28.0	28.0	71.0
35	4/17/76	22	45	3.2	28.3	28.3	71.2
35	4/17/76	23	0	1.1	28.6	28.6	71.5
35	4/17/76	23	10	1.6	28.8	28.8	71.8
35	4/17/76	23	40	0.5	29.1	29.1	72.0

TABLE B1- 5. CONTINUED

GAGE	DATE	HOUR	MIN	PRECIP INTENSITY MM/HR	ACCUMULATED STORM MM	PRECIPITATION DAY MM	PRECIPITATION YEAR MM
35	4/17/76	23	45	12.7	30.2	30.2	73.1
35	4/18/76	0	5	0.0	30.2	0.0	73.1
35	4/18/76	0	10	41.3	33.6	3.4	76.5
35	4/18/76	0	15	47.6	37.6	7.4	80.5
35	4/18/76	0	20	6.4	38.1	7.9	81.0
35	4/18/76	0	35	11.6	41.0	10.8	83.9
35	4/18/76	0	45	15.9	43.7	13.5	86.6
35	4/18/76	1	0	1.1	43.9	13.8	86.8
35	4/18/76	1	5	12.7	45.0	14.8	87.9
35	4/18/76	1	10	3.2	45.2	15.1	88.2
35	4/18/76	1	20	1.6	45.5	15.3	88.4
35	4/18/76	1	30	1.6	45.8	15.6	88.7
35	4/18/76	1	35	3.2	46.0	15.9	89.0
35	4/18/76	1	50	1.1	46.3	16.1	89.2
35	4/18/76	2	20	2.1	47.4	17.2	90.3
35	4/18/76	2	30	1.6	47.6	17.5	90.6
35	4/18/76	3	0	2.6	48.9	18.8	91.9
35	4/18/76	3	10	3.2	49.5	19.3	92.4
35	4/18/76	3	20	3.2	50.0	19.8	92.9
35	4/18/76	3	30	1.6	50.3	20.1	93.2
35	4/18/76	3	40	1.6	50.5	20.4	93.5
35	4/18/76	4	0	3.2	51.6	21.4	94.5
35	4/18/76	4	10	6.4	52.7	22.5	95.6
35	4/18/76	4	20	1.6	52.9	22.8	95.8
35	4/18/76	4	30	4.8	53.7	23.5	96.6
35	4/18/76	4	35	3.2	54.0	23.8	96.9
35	4/18/76	5	50	0.0	54.0	23.8	96.9
35	4/18/76	6	10	2.4	54.8	24.6	97.7
35	4/18/76	6	20	3.2	55.3	25.1	98.2
35	4/18/76	6	30	1.6	55.6	25.4	98.5
35	4/18/76	7	0	0.5	55.8	25.7	98.8
35	4/18/76	7	20	1.6	56.4	26.2	99.3
35	4/18/76	7	40	0.8	56.6	26.5	99.5
35	4/18/76	8	15	0.0	56.6	26.5	99.5
35	4/18/76	9	0	0.7	57.1	27.0	100.1
35	4/20/76			NO DATA	0.0	0.0	100.1
35	4/20/76			NO DATA	39.6	39.6	139.7
35	4/23/76	4	0	0.0	0.0	0.0	139.7
35	4/23/76	6	10	0.1	0.3	0.3	140.0
35	4/23/76	6	30	1.6	0.8	0.8	140.5
35	4/23/76	6	37	4.6	1.3	1.3	141.0
35	4/23/76	6	41	24.1	2.9	2.9	142.6
35	4/23/76	6	49	4.0	3.5	3.5	143.2
35	4/23/76	6	50	16.1	3.7	3.7	143.4
35	4/23/76	7	0	6.4	4.8	4.8	144.5
35	4/23/76	7	3	10.7	5.4	5.4	145.0
35	4/23/76	7	10	13.8	7.0	7.0	146.7
35	4/23/76	7	12	16.1	7.5	7.5	147.2
35	4/23/76	7	17	9.6	8.3	8.3	148.0
35	4/23/76	7	20	10.7	8.8	8.8	148.5
35	4/23/76	7	24	8.0	9.4	9.4	149.1
35	4/23/76	7	28	12.0	10.2	10.2	149.9
35	4/23/76	7	35	6.9	11.0	11.0	150.7
35	4/23/76	7	37	24.1	11.8	11.8	151.5
35	4/23/76	7	40	5.4	12.0	12.0	151.7
35	4/23/76	7	44	16.1	13.1	13.1	152.8
35	4/23/76	7	49	6.4	13.6	13.6	153.3
35	4/23/76	7	50	16.1	13.9	13.9	153.6
35	4/23/76	8	2	9.4	15.8	15.8	155.5
35	4/23/76	8	7	12.8	16.9	16.9	156.6
35	4/23/76	8	10	5.4	17.1	17.1	156.8
35	4/23/76	8	15	9.6	17.9	17.9	157.6
35	4/23/76	8	30	4.3	19.0	19.0	158.7
35	4/23/76	8	50	6.4	21.1	21.1	160.8
35	4/23/76	9	0	3.2	21.7	21.7	161.4
35	4/23/76	9	10	1.6	21.9	21.9	161.6
35	4/23/76	15	50	0.0	21.9	21.9	161.6
35	4/23/76	15	54	8.0	22.5	22.5	162.2
35	4/23/76	15	57	48.2	24.9	24.9	164.6
35	4/23/76	16	5	2.0	25.1	25.1	164.8
35	4/23/76	19	44	0.0	0.0	25.1	164.8
35	4/23/76	19	50	5.1	0.5	25.7	165.4
35	4/23/76	19	55	3.0	0.8	25.9	165.6
35	4/24/76	1	22	0.0	1.0	0.3	165.9
35	4/24/76	1	28	25.4	3.6	2.8	168.4
35	4/24/76	1	42	3.3	4.3	3.6	169.2
35	4/24/76	2	30	1.0	5.1	4.3	169.9
35	4/24/76	3	24	0.3	5.3	4.6	170.2
35	4/24/76	3	25	137.2	7.6	6.9	172.5
35	4/24/76	4	30	0.2	7.9	7.1	172.7
35	4/24/76	5	0	0.5	8.1	7.4	173.0
35	4/24/76	5	50	0.3	8.4	7.6	173.2
35	4/24/76	6	10	2.3	9.1	8.4	174.0
35	4/24/76	8	50	0.1	9.4	8.6	174.2
35	4/24/76	10	0	0.2	9.7	8.9	174.5
35	4/24/76	11	30	0.2	9.9	9.1	174.8
35	4/24/76	11	35	0.0	9.9	9.1	174.8
35	4/24/76	12	0	1.2	10.4	9.7	175.3
35	4/24/76	12	3	10.2	10.9	10.2	175.8
35	4/24/76	12	5	22.9	11.7	10.9	176.5
35	4/24/76	13	30	0.2	11.9	11.2	176.8
35	4/24/76	14	40	0.2	12.2	11.4	177.0
35	4/24/76	15	30	0.3	12.4	11.7	177.3
35	4/24/76	17	0	0.2	12.7	11.9	177.5
35	4/24/76	17	30	0.5	13.0	12.2	177.8
35	4/24/76	18	40	0.7	13.7	13.0	178.6
35	4/24/76	21	10	0.5	15.0	14.2	179.8
35	4/24/76	22	0	0.3	15.2	14.5	180.1
35	4/24/76	22	33	0.0	15.2	14.5	180.1
35	4/24/76	22	55	4.2	16.8	16.0	181.6

TABLE 81- 5. CONTINUED

GAGE	DATE	HOUR	MIN	PRECIP INTENSITY MM/HR	ACCUMULATED STORM MM	PRECIPITATION DAY MM	PRECIPITATION YEAR MM
35	5/ 2/76	0	30	3.1	0.5	0.5	182.1
35	5/ 2/76	0	40	0.0	0.5	0.5	182.1
35	5/ 2/76	0	50	3.1	1.0	1.0	182.6
35	5/ 2/76	1	0	0.0	1.0	1.0	182.6
35	5/ 2/76	1	3	15.6	1.8	1.8	183.4
35	5/ 2/76	1	9	0.0	1.8	1.8	183.4
35	5/ 2/76	1	30	3.7	3.1	3.1	184.7
35	5/ 2/76	1	40	6.2	4.2	4.2	185.8
35	5/ 2/76	1	45	3.1	4.4	4.4	186.0
35	5/ 2/76	1	50	6.2	4.9	4.9	186.5
35	5/ 2/76	2	0	3.1	5.4	5.4	187.1
35	5/ 2/76	2	32	0.0	5.4	5.4	187.1
35	5/ 2/76	2	36	3.9	5.7	5.7	187.3
35	5/ 2/76	2	40	7.8	6.2	6.2	187.8
35	5/ 2/76	2	50	4.7	7.0	7.0	188.6
35	5/ 2/76	3	0	1.6	7.3	7.3	188.9
35	5/ 2/76	3	10	1.6	7.5	7.5	189.1
35	5/ 2/76	3	21	2.8	8.0	8.0	189.7
35	5/ 2/76	3	23	15.6	8.6	8.6	190.2
35	5/ 2/76	3	30	4.4	9.1	9.1	190.7
35	5/ 2/76	4	7	2.1	10.4	10.4	192.0
35	5/ 2/76	4	16	5.2	11.2	11.2	192.8
35	5/ 2/76	5	50	0.5	11.9	11.9	193.5
35	5/13/76			NO DATA	0.0	0.0	193.5
35	5/13/76			NO DATA	8.9	8.9	202.4
35	5/15/76	9	0	0.0	0.0	0.0	202.4
35	5/15/76	9	17	3.6	1.0	1.0	203.5
35	5/15/76	9	40	1.3	1.5	1.5	204.0
35	5/15/76	10	0	0.8	1.8	1.8	204.2
35	5/15/76	10	30	0.5	2.1	2.1	204.5
35	5/15/76	11	30	0.5	2.6	2.6	205.0
35	5/15/76	11	40	1.5	2.8	2.8	205.3
35	5/15/76	14	0	0.1	3.1	3.1	205.5
35	5/15/76	15	0	0.5	3.6	3.6	206.0
35	5/16/76	2	30	0.0	3.6	0.0	206.0
35	5/16/76	3	0	0.5	3.9	0.3	206.3
35	5/16/76	4	19	0.6	4.6	1.0	207.1
35	5/16/76	4	30	2.8	5.1	1.5	207.6
35	5/16/76	4	50	1.5	5.7	2.1	208.1
35	5/16/76	5	12	0.7	5.9	2.3	208.4
35	5/16/76	5	20	3.9	6.4	2.8	208.9
35	5/16/76	5	30	3.1	6.9	3.3	209.4
35	5/16/76	11	20	0.0	6.9	3.3	209.4
35	5/16/76	11	26	5.1	7.5	3.9	209.9
35	5/16/76	11	27	15.4	7.7	4.1	210.2
35	5/16/76	11	30	10.3	8.2	4.6	210.7
35	5/16/76	12	0	1.0	8.7	5.1	211.2
35	5/16/76	12	10	4.6	9.5	5.9	212.0
35	5/16/76	12	30	3.9	10.8	7.2	213.2
35	5/16/76	12	50	3.1	11.8	8.2	214.3
35	5/16/76	12	57	2.2	12.1	8.5	214.5
35	5/16/76	13	15	4.3	13.4	9.8	215.8
35	5/16/76	13	30	3.1	14.2	10.5	216.6
35	5/16/76	14	0	2.1	15.2	11.6	217.6
35	5/16/76	14	6	0.0	15.2	11.6	217.6
35	5/16/76	14	40	2.3	16.5	12.9	218.9
35	5/16/76	15	10	1.5	17.2	13.6	219.7
35	5/16/76	16	30	0.0	17.2	13.6	219.7
35	5/16/76	17	20	1.2	18.3	14.7	220.7
35	5/16/76	17	30	1.5	18.5	14.9	221.0
35	5/16/76	18	0	1.0	19.0	15.4	221.5
35	5/16/76	18	50	0.9	19.8	16.2	222.2
35	5/22/76	3	30	0.0	0.0	0.0	222.2
35	5/22/76	3	40	12.6	2.1	2.1	224.3
35	5/22/76	3	43	21.0	3.1	3.1	225.4
35	5/22/76	3	46	10.5	3.7	3.7	225.9
35	5/22/76	4	0	1.1	3.9	3.9	226.2
35	5/22/76	10	30	0.0	3.9	3.9	226.2
35	5/22/76	10	44	1.1	4.2	4.2	226.4
35	5/22/76	10	45	31.4	4.7	4.7	227.0
35	5/22/76	11	5	2.4	5.5	5.5	227.8
35	5/22/76	11	19	1.1	5.8	5.8	228.0
35	5/22/76	11	21	7.9	6.0	6.0	228.3
35	5/22/76	11	40	0.8	6.3	6.3	228.5
35	5/22/76	11	47	2.2	6.6	6.6	228.8
35	5/22/76	11	53	13.1	7.9	7.9	230.1
35	5/22/76	13	0	2.1	10.2	10.2	232.5
35	5/22/76	13	30	1.6	11.0	11.0	233.3
35	5/22/76	14	0	0.5	11.3	11.3	233.5
35	5/22/76	19	50	0.0	11.3	11.3	233.5
35	5/22/76	20	40	0.6	11.8	11.8	234.0
35	5/22/76	21	0	0.8	12.1	12.1	234.3
35	5/22/76	22	0	0.5	12.6	12.6	234.8
35	5/22/76	22	23	0.0	12.6	12.6	234.8
35	5/22/76	22	33	3.1	13.1	13.1	235.4
35	5/22/76	23	10	0.4	13.4	13.4	235.6
35	5/23/76	0	30	0.2	13.6	0.3	235.9
35	5/23/76	1	0	0.5	13.9	0.5	236.1
35	5/23/76	2	0	0.3	14.2	0.8	236.4
35	5/23/76	2	30	0.5	14.4	1.0	236.7
35	5/23/76	3	40	0.2	14.7	1.3	236.9
35	5/23/76	4	50	0.7	15.3	2.1	237.7
35	5/23/76	6	0	0.0	15.5	2.1	237.7
35	5/23/76	11	0	0.2	16.5	3.1	238.8
35	5/28/76	22	15	0.0	0.0	0.0	238.8
35	5/28/76	22	27	6.7	1.3	1.3	240.1
35	5/28/76	22	35	2.0	1.6	1.6	240.4
35	5/28/76	22	45	4.8	2.4	2.4	241.2
35	5/28/76	23	10	1.3	2.9	2.9	241.7
35	5/28/76	23	15	3.2	3.2	3.2	242.0

TABLE B1- 5. CONTINUED

GAGE	DATE	HOUR	MIN	PRECIP INTENSITY MM/HR	ACCUMULATED STORM MM	PRECIPITATION DAY MM	PRECIPITATION YEAR MM
35	5/28/76	23	23	6.0	4.0	4.0	242.8
35	5/28/76	23	34	0.0	4.0	4.0	242.8
35	5/28/76	23	40	2.7	4.3	4.3	243.0
35	5/28/76	23	43	26.7	5.6	5.6	244.4
35	5/28/76	23	45	0.0	5.6	5.6	244.4
35	5/28/76	23	49	16.0	6.7	6.7	245.4
35	5/29/76	0	40	0.3	6.9	0.3	245.7
35	5/29/76	1	0	1.6	7.5	0.8	246.2
35	5/29/76	1	10	3.2	8.0	1.3	246.8
35	5/29/76	1	14	4.0	8.3	1.6	247.0
35	5/29/76	1	24	24.0	12.3	5.6	251.0
35	5/29/76	1	30	2.7	12.5	5.9	251.3
35	5/29/76	6	6	0.1	12.8	6.1	251.6
35	5/29/76	6	7	32.0	13.3	6.7	252.1
35	5/29/76	6	30	2.1	14.1	7.5	252.9
35	5/29/76	6	45	0.0	14.1	7.5	252.9
35	5/29/76	6	46	48.0	14.9	8.3	253.7
35	5/29/76	6	55	5.3	15.7	9.1	254.5
35	5/29/76	7	0	3.2	16.0	9.3	254.7
35	5/29/76	7	11	0.0	16.0	9.3	254.7
35	5/29/76	7	14	5.3	16.3	9.6	255.0
35	5/29/76	7	25	0.0	16.3	9.6	255.0
35	5/29/76	7	26	48.0	17.1	10.4	255.8
35	5/29/76	7	40	1.1	17.3	10.7	256.1
35	5/29/76	7	48	149.9	37.3	30.6	276.1
35	5/29/76	8	0	2.7	37.8	31.2	276.6
35	6/10/76	4	18	0.0	0.0	0.0	276.6
35	6/10/76	4	19	32.1	0.5	0.5	277.1
35	6/10/76	4	33	0.0	0.5	0.5	277.1
35	6/10/76	4	35	8.0	0.8	0.8	277.4
35	6/10/76	4	37	24.1	1.6	1.6	278.2
35	6/10/76	4	38	16.1	1.9	1.9	278.5
35	6/10/76	4	44	77.7	9.6	9.6	286.2
35	6/10/76	4	45	80.4	11.0	11.0	287.6
35	6/10/76	4	50	16.1	12.3	12.3	288.9
35	6/10/76	4	51	96.5	13.9	13.9	290.5
35	6/10/76	5	13	0.7	14.2	14.2	290.8
35	6/10/76	5	30	3.8	15.3	15.3	291.9
35	6/10/76	5	40	1.6	15.5	15.5	292.1
35	6/10/76	6	7	0.0	15.5	15.5	292.1
35	6/10/76	6	38	2.6	16.9	16.9	293.5
35	6/10/76	7	0	2.2	17.7	17.7	294.3
35	6/10/76	7	10	1.6	18.0	18.0	294.6
35	6/10/76	7	20	3.2	18.5	18.5	295.1
35	6/10/76	7	30	3.2	19.0	19.0	295.6
35	6/10/76	8	0	1.1	19.6	19.6	296.2
35	6/12/76	20	18	0.0	0.0	0.0	296.2
35	6/12/76	20	20	38.1	1.3	1.3	297.4
35	6/12/76	20	24	15.2	2.3	2.3	298.4
35	6/12/76	20	27	66.0	5.6	5.6	301.7
35	6/12/76	20	37	12.2	7.6	7.6	303.8
35	6/12/76	20	39	38.1	8.9	8.9	305.0
35	6/12/76	20	41	7.6	9.1	9.1	305.3
35	6/12/76	20	45	3.8	9.4	9.4	305.6
35	6/12/76	20	48	15.2	10.2	10.2	306.3
35	6/12/76	20	50	38.1	11.4	11.4	307.6
35	6/12/76	20	54	19.1	12.7	12.7	308.9
35	6/12/76	21	0	10.2	13.7	13.7	309.9
35	6/12/76	21	10	4.6	14.5	14.5	310.6
35	6/12/76	21	20	6.1	15.5	15.5	311.7
35	6/12/76	21	40	1.5	16.0	16.0	312.2
35	6/12/76	22	20	0.8	16.5	16.5	312.7
35	6/13/76	18	30	0.0	0.0	0.0	312.7
35	6/13/76	18	35	6.4	0.5	0.5	313.2
35	6/13/76	18	40	31.8	3.2	3.2	315.8
35	6/13/76	18	42	39.7	4.5	4.5	317.2
35	6/13/76	18	45	26.5	5.8	5.8	318.5
35	6/13/76	18	51	47.7	10.6	10.6	323.3
35	6/13/76	19	3	29.1	16.4	16.4	329.1
35	6/13/76	19	13	4.8	17.2	17.2	329.9
35	6/13/76	19	16	31.8	18.8	18.8	331.5
35	6/13/76	19	22	7.9	19.6	19.6	332.3
35	6/13/76	19	28	7.9	20.4	20.4	333.1
35	6/13/76	19	37	21.2	23.6	23.6	336.2
35	6/13/76	20	0	5.5	25.7	25.7	338.3
35	6/13/76	20	15	3.2	26.5	26.5	339.1
35	6/13/76	20	23	6.0	27.3	27.3	339.9
35	6/13/76	20	31	17.9	29.6	29.6	342.3
35	6/13/76	20	48	9.3	32.3	32.3	345.0
35	6/13/76	21	20	4.0	34.4	34.4	347.1
35	6/13/76	21	32	10.6	36.5	36.5	349.2
35	6/13/76	21	36	7.9	37.1	37.1	349.7
35	6/13/76	23	30	0.3	37.6	37.6	350.3
35	6/17/76			NO DATA	0.0	0.0	350.3
35	6/17/76			NO DATA	4.6	4.6	354.8
35	6/23/76			NO DATA	0.0	0.0	354.8
35	6/23/76			NO DATA	3.8	3.8	358.6
35	6/24/76	9	0	0.0	0.0	0.0	358.6
35	6/24/76	9	14	1.1	0.2	0.2	358.9
35	6/24/76	9	18	7.5	0.7	0.7	359.4
35	6/24/76	9	30	2.5	1.2	1.2	359.9
35	6/24/76	9	37	2.1	1.5	1.5	360.1
35	6/24/76	9	43	7.5	2.2	2.2	360.9
35	6/24/76	9	50	14.9	4.0	4.0	362.6
35	6/24/76	9	58	3.7	4.5	4.5	363.1
35	6/24/76	10	0	22.4	5.2	5.2	363.9
35	6/24/76	10	7	17.1	7.2	7.2	365.9
35	6/24/76	10	13	5.0	7.7	7.7	366.3

TABLE B1- 5. CONTINUED

GAGE	DATE	HOUR	MIN	PRECIP INTENSITY MM/HR	ACCUMULATED PRECIPITATION STORM MM	DAY MM	YEAR MM
35	6/24/76	10	15	29.8	8.7	8.7	367.3
35	6/24/76	10	20	9.0	9.5	9.5	368.1
35	6/24/76	10	26	12.4	10.7	10.7	369.3
35	6/24/76	10	34	5.6	11.4	11.4	370.1
35	6/24/76	10	57	1.3	11.9	11.9	370.6
35	6/25/76			NO DATA	0.0	0.0	370.6
35	6/25/76			NO DATA	1.8	1.8	372.4
35	6/26/76			NO DATA	0.0	0.0	372.4
35	6/26/76			NO DATA	2.5	2.5	374.9
35	6/29/76	5	20	0.0	0.0	0.0	374.9
35	6/29/76	5	40	0.8	0.3	0.3	375.2
35	6/29/76	5	43	53.8	3.0	3.0	377.9
35	6/29/76	5	54	2.9	3.5	3.5	378.4
35	6/29/76	5	55	32.3	4.0	4.0	378.9
35	6/29/76	6	0	6.5	4.6	4.6	379.5
35	6/29/76	6	2	24.2	5.4	5.4	380.3
35	6/29/76	6	15	1.2	5.6	5.6	380.5
35	6/29/76	6	20	3.2	5.9	5.9	380.8
35	6/29/76	6	30	4.8	6.7	6.7	381.6
35	6/29/76	6	35	0.0	6.7	6.7	381.6
35	6/29/76	6	40	6.5	7.3	7.3	382.2
35	6/29/76	6	50	1.6	7.5	7.5	382.4
35	6/29/76	7	2	1.3	7.8	7.8	382.7
35	6/29/76	7	4	8.1	8.1	8.1	383.0
35	6/29/76	7	26	0.7	8.3	8.3	383.2
35	6/29/76	7	27	48.4	9.1	9.1	384.0
35	7/16/76			NO DATA	0.0	0.0	384.0
35	7/16/76			NO DATA	0.5	0.5	384.5
35	7/20/76	15	25	0.0	0.0	0.0	384.5
35	7/20/76	16	0	1.4	0.8	0.8	385.4
35	7/20/76	16	7	0.0	0.8	0.8	385.4
35	7/20/76	16	17	16.6	3.6	3.6	388.1
35	7/20/76	16	45	0.0	3.6	3.6	388.1
35	7/20/76	16	47	8.3	3.9	3.9	388.4
35	7/20/76	18	20	0.0	3.9	3.9	388.4
35	7/20/76	18	42	0.8	4.1	4.1	388.7
35	7/20/76	18	49	7.1	5.0	5.0	389.5
35	7/20/76	19	16	1.8	5.8	5.8	390.3
35	7/20/76	19	18	8.3	6.1	6.1	390.6
35	7/20/76	19	30	1.4	6.3	6.3	390.9
35	7/26/76			NO DATA	0.0	0.0	390.9
35	7/26/76			NO DATA	0.8	0.8	391.7
35	7/28/76	2	28	0.0	0.0	0.0	391.7
35	7/28/76	2	30	15.7	0.5	0.5	392.2
35	7/28/76	2	34	7.9	1.0	1.0	392.7
35	7/28/76	2	38	23.6	2.6	2.6	394.3
35	7/28/76	2	49	57.2	13.1	13.1	404.7
35	7/28/76	2	54	15.7	14.4	14.4	406.1
35	7/28/76	2	56	39.3	15.7	15.7	407.4
35	7/28/76	3	0	7.9	16.2	16.2	407.9
35	7/28/76	3	8	2.0	16.5	16.5	408.2
35	7/28/76	3	17	7.0	17.5	17.5	409.2
35	7/28/76	3	30	3.6	18.3	18.3	410.0
35	7/28/76	3	37	9.0	19.4	19.4	411.0
35	7/28/76	3	45	3.9	19.9	19.9	411.6
35	7/28/76	3	51	7.9	20.7	20.7	412.3
35	7/28/76	4	7	3.9	21.7	21.7	413.4
35	7/28/76	4	28	2.2	22.5	22.5	414.2
35	7/28/76	4	51	4.1	24.1	24.1	415.7
35	7/28/76	5	0	1.7	24.4	24.4	416.0
35	7/28/76	5	30	0.5	24.6	24.6	416.3
35	7/28/76	6	10	0.0	24.6	24.6	416.3
35	7/28/76	6	40	0.5	24.9	24.9	416.5
35	7/28/76	7	33	0.3	25.1	25.1	416.8
35	7/30/76			NO DATA	0.0	0.0	416.8
35	7/30/76			NO DATA	4.1	4.1	420.9
35	8/11/76			NO DATA	0.0	0.0	420.9
35	8/11/76			NO DATA	4.8	4.8	425.7
35	8/13/76			NO DATA	0.0	0.0	425.7
35	8/13/76			NO DATA	0.3	0.3	425.9
35	8/17/76			NO DATA	0.0	0.0	425.9
35	8/17/76			NO DATA	2.0	2.0	428.0
35	9/19/76	5	51	0.0	0.0	0.0	428.0
35	9/19/76	5	53	39.1	1.3	1.3	429.3
35	9/19/76	6	0	2.2	1.6	1.6	429.5
35	9/19/76	6	40	0.8	2.1	2.1	430.1
35	9/19/76	7	46	0.0	2.1	2.1	430.1
35	9/19/76	7	48	15.6	2.6	2.6	430.6
35	9/19/76	7	57	1.7	2.9	2.9	430.8
35	9/19/76	8	8	0.0	0.8	2.9	430.8
35	9/19/76	8	15	29.0	4.2	6.3	434.2
35	9/19/76	8	20	6.3	4.7	6.8	434.7
35	9/19/76	8	28	2.0	5.0	7.0	435.0
35	9/19/76	8	33	3.1	5.2	7.3	435.3
35	9/19/76	8	35	31.3	6.3	8.3	436.3
35	9/19/76	8	50	3.1	7.0	9.1	437.1
35	9/19/76	8	56	7.8	7.8	9.9	437.9
35	9/19/76	9	0	3.9	8.1	10.2	438.1
35	9/19/76	9	7	2.2	8.3	10.4	438.4
35	9/19/76	9	20	3.6	9.1	11.2	439.2
35	9/19/76	10	15	0.9	9.9	12.0	440.0

TABLE B1- 5. CONCLUDED

GAGE	DATE	HOUR	MIN	PRECIP INTENSITY MM/HR	ACCUMULATED STORM MM	PRECIPITATION DAY MM	PRECIPITATION YEAR MM
35	9/27/76			NO DATA	3.6	3.6	443.5
35	10/ 4/76	7	0	0.0	0.0	0.0	443.5
35	10/ 4/76	7	10	1.7	0.3	0.3	443.8
35	10/ 4/76	7	14	4.3	0.6	0.6	444.1
35	10/ 4/76	7	25	0.0	0.6	0.6	444.1
35	10/ 4/76	8	0	1.0	1.2	1.2	444.7
35	10/ 4/76	8	25	0.7	1.4	1.4	445.0
35	10/ 4/76	8	34	1.9	1.7	1.7	445.3
35	10/ 4/76	9	3	1.8	2.6	2.6	446.1
35	10/ 4/76	10	7	0.3	2.9	2.9	446.4
35	10/ 4/76	10	20	1.3	3.2	3.2	446.7
35	10/ 4/76	10	30	1.7	3.5	3.5	447.0
35	10/ 4/76	11	2	1.1	4.0	4.0	447.6
36	10/ 4/76	12	46	0.2	4.3	4.3	447.9
35	10/ 4/76	12	57	3.2	4.9	4.9	448.4
35	10/ 4/76	13	3	2.9	5.2	5.2	448.7
35	10/ 4/76	13	5	8.7	5.5	5.5	449.0
35	10/ 4/76	13	24	5.5	7.2	7.2	450.7
35	10/ 4/76	13	28	4.3	7.5	7.5	451.0
35	10/ 4/76	13	41	6.7	9.0	9.0	452.5
35	10/ 4/76	13	50	1.9	9.3	9.3	452.8
35	10/ 4/76	13	55	6.9	9.8	9.8	453.3
35	10/ 4/76	14	10	1.2	10.1	10.1	453.6
35	10/ 4/76	14	30	0.9	10.4	10.4	453.9
35	10/ 5/76			NO DATA	0.0	0.0	453.9
35	10/ 5/76			NO DATA	5.8	5.8	459.8
35	10/18/76			NO DATA	0.0	0.0	459.8
35	10/18/76			NO DATA	2.5	2.5	462.3
35	10/19/76			NO DATA	0.0	0.0	462.3
35	10/19/76			NO DATA	2.5	2.5	464.8
35	10/24/76	9	20	0.0	0.0	0.0	464.8
35	10/24/76	9	21	38.8	0.6	0.6	465.5
35	10/24/76	9	40	2.0	1.3	1.3	466.1
35	10/24/76	9	47	2.8	1.6	1.6	466.5
35	10/24/76	11	0	0.5	2.3	2.3	467.1
35	10/24/76	12	39	0.2	2.6	2.6	467.4
35	10/24/76	12	40	19.4	2.9	2.9	467.8
38	10/24/76	12	46	3.2	3.2	3.2	468.1
35	10/24/76	12	50	9.7	3.9	3.9	468.7
35	10/24/76	13	0	3.9	4.5	4.5	469.4
35	10/24/76	13	20	1.0	4.8	4.8	469.7
35	10/24/76	13	34	2.8	5.5	5.5	470.3
35	10/24/76	14	10	0.0	5.5	5.5	470.3
35	10/24/76	14	20	1.9	5.8	5.8	470.7
35	10/24/76	14	30	1.9	6.1	6.1	471.0
35	10/24/76	16	24	0.2	6.5	6.5	471.3
35	10/24/76	17	5	0.9	7.1	7.1	472.0
35	10/30/76	1	0	0.0	0.0	0.0	472.0
35	10/30/76	1	10	1.6	0.3	0.3	472.2
35	10/30/76	1	20	1.6	0.5	0.5	472.5
35	10/30/76	2	0	0.8	1.1	1.1	473.0
35	10/30/76	5	50	0.0	1.1	1.1	473.0
35	10/30/76	6	30	0.8	1.6	1.6	473.6
35	10/30/76	7	30	0.0	1.6	1.6	473.6
35	10/30/76	8	10	1.6	2.7	2.7	474.6
35	10/30/76	9	40	1.2	4.6	4.6	476.5
35	10/30/76	10	10	1.1	5.1	5.1	477.0
35	10/30/76	11	0	0.0	5.1	5.1	477.0
35	10/30/76	12	0	1.3	6.4	6.4	478.4
35	10/30/76	13	0	0.3	6.7	6.7	478.7
35	10/30/76	13	30	1.1	7.2	7.2	479.2
35	10/30/76	14	10	0.8	7.8	7.8	479.7
35	10/30/76	15	0	0.6	8.3	8.3	480.3
38	10/30/76	16	0	0.3	8.6	8.6	480.5
35	10/30/76	16	40	2.0	9.9	9.9	481.9

TABLE B1- 6. FOUR MILE CREEK WATERSHED PRECIPITATION DATA FOR 1976 GAGE 36

GAGE	DATE	HOUR	MIN	PRECIP INTENSITY MM/HR	ACCUMULATED STORM MM	PRECIPITATION DAY MM	PRECIPITATION YEAR MM
36	3/26/76			NO DATA	0.0	0.0	0.0
36	3/26/76			NO DATA	1.8	1.8	1.8
36	3/28/76			NO DATA	0.0	0.0	1.8
36	3/28/76			NO DATA	4.3	4.3	6.1
36	3/29/76	11	0	0.0	0.0	0.0	6.1
36	3/29/76	11	30	0.5	0.2	0.2	6.3
36	3/29/76	12	55	0.0	0.2	0.2	6.3
36	3/29/76	13	5	1.5	0.5	0.5	6.6
36	3/29/76	14	0	0.0	0.5	0.5	6.6
36	3/29/76	14	50	0.3	0.7	0.7	6.8
36	3/29/76	15	10	5.1	2.4	2.4	8.5
36	3/29/76	15	20	1.5	2.7	2.7	8.8
36	3/29/76	15	30	1.5	2.9	2.9	9.0
36	3/29/76	16	10	0.0	2.9	2.9	9.0
36	3/29/76	16	20	1.5	3.2	3.2	9.3
36	3/29/76	16	40	1.5	3.7	3.7	9.8
36	3/29/76	16	45	0.0	3.7	3.7	9.8
36	3/29/76	16	50	2.9	3.9	3.9	10.0
36	3/29/76	16	55	2.9	4.2	4.2	10.3
36	3/29/76	17	0	8.8	4.9	4.9	11.0
36	3/29/76	17	5	5.9	5.4	5.4	11.5
36	3/29/76	17	10	2.9	5.6	5.6	11.7
36	3/29/76	17	30	1.5	6.1	6.1	12.2
36	3/29/76	17	35	5.9	6.6	6.6	12.7
36	3/29/76	17	50	2.0	7.1	7.1	13.2
36	3/29/76	17	55	2.9	7.3	7.3	13.4
36	3/29/76	18	0	2.9	7.6	7.6	13.7
36	3/29/76	20	40	0.0	7.6	7.6	13.7
36	3/29/76	21	0	0.7	7.8	7.8	13.9
36	3/29/76	21	25	0.0	7.8	7.8	13.9
36	3/29/76	21	30	2.9	8.1	8.1	14.2
36	3/29/76	21	35	2.9	8.3	8.3	14.4
36	3/29/76	21	40	2.9	8.6	8.6	14.7
36	3/29/76	21	50	1.5	8.8	8.8	14.9
36	3/29/76	22	0	1.5	9.0	9.0	15.1
36	3/29/76	22	10	1.5	9.3	9.3	15.4
36	3/29/76	22	15	8.8	10.0	10.0	16.1
36	3/29/76	22	20	2.9	10.3	10.3	16.4
36	3/29/76	22	25	8.8	11.0	11.0	17.1
36	3/29/76	22	30	8.8	11.7	11.7	17.8
36	3/29/76	22	35	5.9	12.2	12.2	18.3
36	3/29/76	22	40	8.8	13.0	13.0	19.1
36	3/29/76	22	45	8.8	13.7	13.7	19.8
36	3/29/76	22	50	2.9	13.9	13.9	20.0
36	3/29/76	23	0	2.9	14.4	14.4	20.5
36	3/29/76	23	25	4.7	16.4	16.4	22.5
36	3/29/76	23	30	8.8	17.1	17.1	23.2
36	3/29/76	23	35	11.7	18.1	18.1	24.2
36	3/29/76	23	40	2.9	18.3	18.3	24.4
36	3/30/76	0	30	0.3	18.6	0.2	24.7
36	3/30/76	4	40	0.0	18.6	0.2	24.7
36	3/30/76	5	0	0.7	18.8	0.5	24.9
36	3/30/76	5	30	1.0	19.3	1.0	25.4
36	3/30/76	5	40	2.9	19.8	1.5	25.9
36	4/14/76			NO DATA	0.0	0.0	25.9
36	4/14/76			NO DATA	10.9	10.9	36.8
36	4/15/76			NO DATA	0.0	0.0	36.8
36	4/15/76			NO DATA	4.1	4.1	40.9
36	4/17/76			NO DATA	0.0	0.0	40.9
36	4/17/76			NO DATA	29.7	29.7	70.6
36	4/18/76			NO DATA	0.0	0.0	70.6
36	4/18/76			NO DATA	29.5	29.5	100.1
36	4/20/76	11	10	0.0	0.0	0.0	100.1
36	4/20/76	11	15	11.4	1.0	1.0	101.0
36	4/20/76	11	23	0.0	1.0	1.0	101.0
36	4/20/76	11	27	4.8	1.3	1.3	101.3
36	4/20/76	11	50	3.3	2.5	2.5	102.6
36	4/20/76	12	10	1.0	2.9	2.9	102.9
36	4/20/76	12	30	1.9	3.5	3.5	103.6
36	4/20/76	12	53	1.7	4.1	4.1	104.2
36	4/20/76	13	7	4.1	5.1	5.1	105.2
36	4/20/76	13	9	0.0	5.1	5.1	105.2
36	4/20/76	13	20	5.2	6.0	6.0	106.1
36	4/20/76	13	40	2.9	7.0	7.0	107.1
36	4/20/76	14	4	3.2	8.3	8.3	108.3
36	4/20/76	14	22	5.3	9.8	9.8	109.9
36	4/20/76	14	50	3.4	11.4	11.4	111.5
36	4/20/76	15	0	1.9	11.7	11.7	111.8
36	4/20/76	15	20	4.8	13.3	13.3	113.4
36	4/20/76	15	24	9.5	14.0	14.0	114.0
36	4/20/76	15	30	6.3	14.6	14.6	114.7
36	4/20/76	15	38	0.0	14.6	14.6	114.7
36	4/20/76	16	10	6.0	17.8	17.8	117.9
36	4/20/76	16	40	3.8	19.7	19.7	119.8
36	4/20/76	16	57	3.4	20.6	20.6	120.7
36	4/20/76	17	0	19.0	21.6	21.6	121.7
36	4/20/76	17	20	2.9	22.5	22.5	122.6
36	4/20/76	17	27	0.0	22.5	22.5	122.6
36	4/20/76	17	40	4.4	23.5	23.5	123.6
36	4/20/76	17	52	6.4	24.8	24.8	124.8
36	4/20/76	18	10	5.3	26.4	26.4	126.4
36	4/20/76	18	25	3.8	27.3	27.3	127.4
36	4/20/76	18	40	3.8	28.3	28.3	128.3
36	4/20/76	18	50	3.8	28.9	28.9	129.0
36	4/20/76	19	54	0.0	28.9	28.9	129.0
36	4/20/76	20	0	3.2	29.2	29.2	129.3
36	4/20/76	20	40	1.9	30.5	30.5	130.6

TABLE 81- 6. CONTINUED

GAGE	DATE	HOUR	MIN	PRECIP INTENSITY MM/HR	ACCUMULATED STORM MM	PRECIPITATION DAY MM	PRECIPITATION YEAR MM
36	4/21/76			NO DATA	0.0	0.0	130.6
36	4/21/76			NO DATA	1.0	1.0	131.6
36	4/23/76			NO DATA	0.0	0.0	131.6
36	4/23/76			NO DATA	22.4	22.4	153.9
36	4/23/76	17	26	0.0	0.0	22.4	153.9
36	4/23/76	17	30	30.5	2.0	24.4	156.0
36	4/23/76	17	31	152.4	4.6	26.9	158.5
36	4/23/76	17	40	3.4	5.1	27.4	159.0
36	4/24/76	1	30	0.0	5.1	0.0	159.0
36	4/24/76	2	5	2.2	6.3	1.3	160.3
36	4/24/76	4	55	0.0	6.3	1.3	160.3
36	4/24/76	6	0	2.3	8.9	3.8	162.8
36	4/24/76	9	0	0.0	8.9	3.8	162.8
36	4/24/76	10	20	0.4	9.4	4.3	163.3
36	4/24/76	11	0	1.1	10.2	5.1	164.1
36	4/24/76	16	50	0.2	11.4	6.3	165.4
36	4/24/76	17	40	1.5	12.7	7.6	166.6
36	4/25/76			NO DATA	0.0	0.0	166.6
36	4/25/76			NO DATA	3.3	3.3	169.9
36	5/ 2/76	1	30	0.0	0.0	0.0	169.9
36	5/ 2/76	2	10	0.7	0.5	0.5	170.4
36	5/ 2/76	2	14	10.5	1.2	1.2	171.1
36	5/ 2/76	2	30	2.6	1.9	1.9	171.8
36	5/ 2/76	2	45	6.5	3.5	3.5	173.4
36	5/ 2/76	3	4	3.7	4.7	4.7	174.6
36	5/ 2/76	3	41	0.4	4.9	4.9	174.8
36	5/ 2/76	3	47	9.3	5.8	5.8	175.8
36	5/ 2/76	4	2	3.7	6.8	6.8	176.7
36	5/ 2/76	4	17	0.9	7.0	7.0	176.9
36	5/ 2/76	4	25	3.5	7.5	7.5	177.4
36	5/ 2/76	4	33	5.2	8.2	8.2	178.1
36	5/ 2/76	4	50	2.5	8.9	8.9	178.8
36	5/ 2/76	5	10	2.1	9.6	9.6	179.5
36	5/ 2/76	5	20	5.6	10.5	10.5	180.4
36	5/ 2/76	6	0	1.4	11.4	11.4	181.4
36	5/12/76	21	40	0.0	0.0	0.0	181.4
36	5/12/76	22	5	1.2	0.5	0.5	181.9
36	5/12/76	23	10	0.0	0.5	0.5	181.9
36	5/12/76	23	30	0.8	0.8	0.8	182.1
36	5/12/76	23	40	3.0	1.3	1.3	182.6
36	5/13/76	1	20	0.6	2.3	1.0	183.6
36	5/13/76	1	30	0.0	2.3	1.0	183.6
36	5/13/76	2	20	1.2	3.3	2.0	184.7
36	5/13/76	2	40	0.8	3.6	2.3	184.9
36	5/13/76	3	10	0.5	3.8	2.5	185.2
36	5/13/76	4	20	0.0	3.8	2.5	185.2
36	5/13/76	4	50	1.5	4.6	3.3	185.9
36	5/13/76	5	10	1.5	5.1	3.8	186.4
36	5/13/76	5	20	3.0	5.6	4.3	186.9
36	5/13/76	5	30	3.0	6.1	4.8	187.4
36	5/13/76	5	45	1.0	6.3	5.1	187.7
36	5/13/76	6	30	0.3	6.6	5.3	188.0
36	5/13/76	6	40	1.5	6.9	5.6	188.2
36	5/13/76	7	30	0.0	6.9	5.6	188.2
36	5/13/76	8	10	1.1	7.6	6.3	189.0
36	5/13/76	9	20	0.4	8.1	6.9	189.5
36	5/13/76	10	30	0.7	8.9	7.6	190.2
36	5/15/76	9	5	0.0	0.0	0.0	190.2
36	5/15/76	9	15	4.5	0.8	0.8	191.0
36	5/15/76	9	30	1.0	1.0	1.0	191.2
36	5/15/76	10	25	0.3	1.3	1.3	191.5
36	5/15/76	11	0	0.4	1.5	1.5	191.7
36	5/15/76	11	35	0.4	1.8	1.8	192.0
36	5/15/76	11	45	1.5	2.0	2.0	192.2
36	5/15/76	13	0	0.4	2.5	2.5	192.7
36	5/16/76	2	40	0.0	2.5	0.0	192.7
36	5/16/76	3	30	0.6	3.0	0.5	193.2
36	5/16/76	4	0	1.0	3.5	1.0	193.7
36	5/16/76	4	15	0.0	3.5	1.0	193.7
36	5/16/76	4	37	1.4	4.0	1.5	194.3
36	5/16/76	4	45	1.9	4.3	1.8	194.5
36	5/16/76	5	0	1.0	4.5	2.0	194.8
36	5/16/76	5	10	3.0	5.0	2.5	195.3
36	5/16/76	5	20	3.0	5.5	3.0	195.8
36	5/16/76	6	0	1.1	6.3	3.8	196.5
36	5/16/76	12	0	0.0	6.3	3.8	196.5
36	5/16/76	12	6	5.0	6.8	4.3	197.0
36	5/16/76	12	20	2.1	7.3	4.8	197.5
36	5/16/76	12	34	3.2	8.0	5.5	198.3
36	5/16/76	12	36	15.0	8.5	6.0	198.8
36	5/16/76	12	47	1.4	8.8	6.3	199.0
36	5/16/76	13	24	4.1	11.3	8.8	201.5
36	5/16/76	13	50	1.7	12.0	9.5	202.3
36	5/16/76	14	0	1.5	12.3	9.8	202.5
36	5/16/76	14	10	1.5	12.5	10.0	202.8
36	5/16/76	14	30	3.0	13.5	11.0	203.8
36	5/16/76	15	0	2.0	14.5	12.0	204.8
36	5/16/76	15	20	0.8	14.8	12.3	205.0
36	5/16/76	16	40	0.2	15.0	12.5	205.3
36	5/16/76	17	0	0.8	15.3	12.8	205.5
36	5/16/76	17	20	1.5	15.8	13.3	206.0
36	5/16/76	17	40	3.0	16.8	14.3	207.0
36	5/16/76	18	10	1.5	17.5	15.0	207.8
36	5/16/76	20	0	0.3	18.0	15.5	208.3
36	5/22/76			NO DATA	0.0	0.0	208.3
36	5/22/76			NO DATA	7.6	7.6	215.9

TABLE B1- 6. CONTINUED

GAGE	DATE	HOUR	MIN	PRECIP INTENSITY MM/HR	ACCUMULATED STORM MM	PRECIPITATION DAY MM	PRECIPITATION YEAR MM
36	5/23/76			NO DATA	5.6	5.6	221.5
36	5/28/76	22	30	0.0	0.0	0.0	221.5
36	5/28/76	23	30	1.2	1.2	1.2	222.7
36	5/28/76	23	45	1.9	1.7	1.7	223.2
36	5/28/76	23	50	14.6	2.9	2.9	224.4
36	5/28/76	24	0	2.9	3.4	3.4	224.9
36	5/29/76	0	53	0.3	3.6	0.2	225.1
36	5/29/76	1	10	3.4	4.6	1.2	226.1
36	5/29/76	1	16	2.4	4.9	1.5	226.3
36	5/29/76	1	17	29.1	5.3	1.9	226.8
36	5/29/76	1	28	6.6	6.6	3.2	228.0
36	5/29/76	5	30	0.0	6.6	3.2	228.0
36	5/29/76	6	40	2.1	9.0	5.6	230.5
36	5/29/76	6	50	4.4	9.7	6.3	231.2
36	5/29/76	6	55	8.7	10.4	7.0	231.9
36	5/29/76	7	22	1.1	10.9	7.5	232.4
36	5/29/76	7	26	14.6	11.9	8.5	233.4
36	5/29/76	7	37	1.3	12.1	8.7	233.6
36	5/29/76	7	42	34.9	15.0	11.6	236.5
36	5/29/76	7	45	155.3	22.8	19.4	244.3
36	5/29/76	7	48	14.6	23.5	20.1	245.0
36	5/29/76	7	53	34.9	26.4	23.1	247.9
36	5/29/76	8	0	6.2	27.2	23.8	248.7
36	6/10/76	6	8	0.0	0.0	0.0	248.7
36	6/10/76	6	13	128.5	10.7	10.7	259.4
36	6/10/76	6	15	179.3	16.7	16.7	265.3
36	6/10/76	6	16	59.8	17.7	17.7	266.3
36	6/10/76	6	21	56.8	22.4	22.4	271.1
36	6/10/76	6	33	1.2	22.7	22.7	271.3
36	6/10/76	6	43	1.5	22.9	22.9	271.6
36	6/10/76	6	50	6.4	23.7	23.7	272.3
36	6/10/76	7	0	6.0	24.6	24.6	273.3
36	6/10/76	7	20	1.5	25.1	25.1	273.8
36	6/12/76	20	12	0.0	0.0	0.0	273.8
36	6/12/76	20	13	37.1	0.6	0.6	274.4
36	6/12/76	20	15	6.2	0.8	0.8	274.6
36	6/12/76	20	16	49.5	1.6	1.6	275.5
36	6/12/76	20	20	15.5	2.7	2.7	276.5
36	6/12/76	20	21	74.2	3.9	3.9	277.7
36	6/12/76	20	24	20.6	4.9	4.9	278.8
36	6/12/76	20	28	18.6	6.2	6.2	280.0
36	6/12/76	20	30	12.4	6.6	6.6	280.4
36	6/12/76	20	34	21.6	8.0	8.0	281.8
36	6/12/76	20	40	6.2	8.7	8.7	282.5
36	6/12/76	20	44	6.2	9.1	9.1	282.9
36	6/12/76	20	47	41.2	11.1	11.1	284.9
36	6/12/76	20	50	12.4	11.8	11.8	285.6
36	6/12/76	20	56	6.2	12.4	12.4	286.2
36	6/12/76	21	0	3.1	12.6	12.6	286.4
36	6/12/76	21	15	4.9	13.8	13.8	287.6
36	6/12/76	21	33	1.4	14.2	14.2	288.0
36	6/13/76	18	35	0.0	0.0	0.0	288.0
36	6/13/76	18	54	47.8	15.1	15.1	303.2
36	6/13/76	19	3	24.8	18.9	18.9	306.9
36	6/13/76	19	7	19.9	20.2	20.2	308.2
36	6/13/76	19	16	8.9	21.5	21.5	309.5
36	6/13/76	19	32	11.0	24.4	24.4	312.5
36	6/13/76	19	39	20.5	26.8	26.8	314.9
36	6/13/76	19	41	23.9	27.6	27.6	315.7
36	6/13/76	20	10	2.2	28.7	28.7	316.7
36	6/13/76	20	18	2.0	29.0	29.0	317.0
36	6/13/76	20	20	8.0	29.2	29.2	317.2
36	6/13/76	20	27	6.8	30.0	30.0	318.0
36	6/13/76	20	28	31.9	30.5	30.5	318.6
36	6/13/76	20	34	15.9	32.1	32.1	320.2
36	6/13/76	20	50	9.0	34.5	34.5	322.6
36	6/13/76	20	54	12.0	35.3	35.3	323.4
36	6/13/76	21	11	11.3	38.5	38.5	326.5
36	6/13/76	21	30	2.5	39.3	39.3	327.3
36	6/13/76	21	40	3.2	39.8	39.8	327.9
36	6/13/76	23	0	0.6	40.6	40.6	328.7
36	6/17/76			NO DATA	0.0	0.0	328.7
36	6/17/76			NO DATA	6.1	6.1	334.8
36	6/23/76			NO DATA	0.0	0.0	334.8
36	6/23/76			NO DATA	3.8	3.8	338.6
36	6/24/76	9	10	0.0	0.0	0.0	338.6
36	6/24/76	9	30	0.5	0.2	0.2	338.8
36	6/24/76	9	42	9.1	2.0	2.0	340.6
36	6/24/76	9	48	3.6	2.4	2.4	340.9
36	6/24/76	9	52	8.2	2.9	2.9	341.5
36	6/24/76	9	54	16.3	3.4	3.4	342.0
36	6/24/76	10	0	12.7	4.7	4.7	343.3
36	6/24/76	10	4	2.7	4.9	4.9	343.5
36	6/24/76	10	7	14.5	5.6	5.6	344.2
36	6/24/76	10	12	6.5	6.2	6.2	344.7
36	6/24/76	10	14	16.3	6.7	6.7	345.3
36	6/24/76	10	20	10.9	7.8	7.8	346.4
36	6/24/76	10	26	5.4	8.3	8.3	346.9
36	6/24/76	10	35	1.2	8.5	8.5	347.1
36	6/24/76	11	40	0.3	8.9	8.9	347.5
36	6/25/76			NO DATA	0.0	0.0	347.5
36	6/25/76			NO DATA	0.8	0.8	348.2
36	6/26/76			NO DATA	0.0	0.0	348.2
36	6/26/76			NO DATA	1.0	1.0	349.2

TABLE B1- 6. CONTINUED

GAGE	DATE	HOUR	MIN	PRECIP INTENSITY MM/HR	ACCUMULATED STORM MM	PRECIPITATION DAY MM	PRECIPITATION YEAR MM
36	6/29/76	5	39	0.6	0.4	0.4	349.6
36	6/29/76	5	43	9.1	1.0	1.0	350.2
36	6/29/76	5	46	8.1	1.4	1.4	350.6
36	6/29/76	5	59	1.9	1.8	1.8	351.1
36	6/29/76	6	2	20.2	2.8	2.8	352.1
36	6/29/76	6	14	3.0	3.4	3.4	352.7
36	6/29/76	6	17	8.1	3.8	3.8	353.1
36	6/29/76	6	30	2.8	4.4	4.4	353.7
36	6/29/76	6	34	3.0	4.6	4.6	353.9
36	6/29/76	6	35	12.1	4.8	4.8	354.1
36	6/29/76	6	40	2.4	5.0	5.0	354.3
36	6/29/76	6	50	1.2	5.2	5.2	354.5
36	6/29/76	7	0	1.2	5.4	5.4	354.7
36	6/29/76	7	10	2.4	5.8	5.8	355.1
36	6/29/76	7	30	0.0	5.8	5.8	355.1
36	6/29/76	7	40	6.1	6.9	6.9	356.1
36	7/16/76			NO DATA	0.0	0.0	356.1
36	7/16/76			NO DATA	0.5	0.5	356.6
36	7/20/76	15	33	0.0	0.0	0.0	356.6
36	7/20/76	15	35	30.5	1.0	1.0	357.6
36	7/20/76	15	40	3.0	1.3	1.3	357.9
36	7/20/76	16	20	1.5	2.3	2.3	358.9
36	7/20/76	18	38	0.0	2.3	2.3	358.9
36	7/20/76	19	0	4.8	4.1	4.1	360.7
36	7/20/76	19	11	4.2	4.8	4.8	361.4
36	7/20/76	19	40	0.5	5.1	5.1	361.7
36	7/20/76	20	0	0.8	5.3	5.3	361.9
36	7/26/76			NO DATA	0.0	0.0	361.9
36	7/26/76			NO DATA	0.8	0.8	362.7
36	7/28/76			NO DATA	0.0	0.0	362.7
36	7/28/76			NO DATA	27.4	27.4	390.1
36	7/30/76			NO DATA	0.0	0.0	390.1
36	7/30/76			NO DATA	3.6	3.6	393.7
36	8/11/76	17	31	0.0	0.0	0.0	393.7
36	8/11/76	17	42	22.6	4.1	4.1	397.8
36	8/11/76	18	40	1.2	5.3	5.3	399.0
36	8/13/76			NO DATA	0.0	0.0	399.0
36	8/13/76			NO DATA	0.8	0.8	399.8
36	8/17/76			NO DATA	0.0	0.0	399.8
36	8/17/76			NO DATA	2.0	2.0	401.8
36	9/19/76	7	47	0.0	0.0	0.0	401.8
36	9/19/76	7	50	39.9	2.0	2.0	403.8
36	9/19/76	8	0	8.5	3.4	3.4	405.2
36	9/19/76	8	8	4.3	4.0	4.0	405.8
36	9/19/76	8	17	11.4	5.7	5.7	407.5
36	9/19/76	8	32	2.3	6.3	6.3	408.1
36	9/19/76	8	35	17.1	7.1	7.1	408.9
36	9/19/76	8	38	22.8	8.3	8.3	410.1
36	9/19/76	8	58	5.1	10.0	10.0	411.8
36	9/19/76	9	10	1.4	10.3	10.3	412.1
36	9/19/76	9	27	5.0	11.7	11.7	413.5
36	9/27/76	19	9	0.0	0.0	0.0	413.5
36	9/27/76	19	11	20.0	0.7	0.7	414.2
36	9/27/76	20	0	0.0	0.7	0.7	414.2
36	9/27/76	20	17	1.2	1.0	1.0	414.5
36	9/27/76	20	21	25.0	2.7	2.7	416.2
36	9/27/76	20	24	20.0	3.7	3.7	417.2
36	9/27/76	20	52	0.7	4.0	4.0	417.5
36	9/27/76	20	57	8.0	4.7	4.7	418.2
36	9/27/76	21	10	1.5	5.0	5.0	418.5
36	9/27/76	21	15	4.0	5.3	5.3	418.8
36	10/ 4/76	6	55	0.0	0.0	0.0	418.8
36	10/ 4/76	7	0	10.4	0.9	0.9	419.7
36	10/ 4/76	7	7	2.5	1.2	1.2	420.0
36	10/ 4/76	7	50	0.0	1.2	1.2	420.0
36	10/ 4/76	8	25	1.0	1.7	1.7	420.6
36	10/ 4/76	9	0	1.5	2.6	2.6	421.4
36	10/ 4/76	9	40	0.4	2.9	2.9	421.7
36	10/ 4/76	10	5	0.7	3.2	3.2	422.0
36	10/ 4/76	10	35	1.7	4.0	4.0	422.9
36	10/ 4/76	12	44	0.1	4.3	4.3	423.2
36	10/ 4/76	12	55	4.7	5.2	5.2	424.0
36	10/ 4/76	13	0	3.5	5.5	5.5	424.3
36	10/ 4/76	13	4	8.7	6.1	6.1	424.9
36	10/ 4/76	13	10	2.9	6.4	6.4	425.2
36	10/ 4/76	13	16	8.7	7.2	7.2	426.1
36	10/ 4/76	13	25	3.9	7.8	7.8	426.6
36	10/ 4/76	13	40	5.8	9.3	9.3	428.1
36	10/ 4/76	13	45	3.5	9.5	9.5	428.4
36	10/ 4/76	13	50	3.5	9.8	9.8	428.7
36	10/ 4/76	14	0	1.7	10.1	10.1	428.9
36	10/ 4/76	14	30	0.6	10.4	10.4	429.2
36	10/ 5/76			NO DATA	0.0	0.0	429.2
36	10/ 5/76			NO DATA	5.3	5.3	434.6
36	10/18/76			NO DATA	0.0	0.0	434.6
36	10/18/76			NO DATA	2.5	2.5	437.1
36	10/19/76			NO DATA	0.0	0.0	437.1
36	10/19/76			NO DATA	3.8	3.8	440.9
36	10/24/76	9	20	0.0	0.0	0.0	440.9

TABLE B1- 6. CONCLUDED

GAGE	DATE	HOUR	MIN	PRECIP INTENSITY MM/HR	ACCUMULATED STORM MM	PRECIPITATION DAY MM	PRECIPITATION YEAR MM
36	10/24/76	9	25	6.1	0.5	0.5	441.4
36	10/24/76	9	40	3.0	1.3	1.3	442.2
36	10/24/76	10	43	0.2	1.5	1.5	442.4
36	10/24/76	10	50	2.2	1.8	1.8	442.7
36	10/24/76	11	20	0.0	1.8	1.8	442.7
36	10/24/76	11	25	6.1	2.3	2.3	443.2
36	10/24/76	11	34	0.0	2.3	2.3	443.2
36	10/24/76	11	37	5.1	2.5	2.5	443.5
36	10/24/76	12	36	0.3	2.8	2.8	443.7
36	10/24/76	12	39	10.2	3.3	3.3	444.2
36	10/24/76	12	53	5.4	4.6	4.6	445.5
36	10/24/76	13	0	4.4	5.1	5.1	446.0
36	10/24/76	13	35	0.9	5.6	5.6	446.5
36	10/24/76	14	12	0.4	5.8	5.8	446.8
36	10/24/76	14	24	5.1	6.9	6.9	447.8
36	10/30/76	1	0	0.0	0.0	0.0	447.8
36	10/30/76	1	40	1.2	0.8	0.8	448.6
36	10/30/76	4	10	0.1	1.1	1.1	448.9
36	10/30/76	7	35	0.0	1.1	1.1	448.9
36	10/30/76	8	0	2.6	2.2	2.2	449.9
36	10/30/76	9	30	1.1	3.8	3.8	451.6
36	10/30/76	10	46	0.4	4.3	4.3	452.1
36	10/30/76	12	30	1.1	6.2	6.2	454.0
36	10/30/76	13	20	1.0	7.0	7.0	454.8
36	10/30/76	14	0	0.8	7.5	7.5	455.3
36	10/30/76	15	0	0.5	8.1	8.1	455.9
36	10/30/76	16	20	0.6	8.9	8.9	456.7
36	12/ 5/76			SNOW	0.0	0.0	456.7
36	12/ 5/76			SNOW	8.1	8.1	464.8
36	12/30/76			SNOW	0.0	0.0	464.8
36	12/30/76			SNOW	1.0	1.0	465.8

GAGE	DATE	HOUR	MIN	PRECIP INTENSITY MM/HR	ACCUMULATED STORM MM	PRECIPITATION DAY MM	PRECIPITATION YEAR MM

TABLE B1- 7. FOUR MILE CREEK WATERSHED PRECIPITATION DATA FOR 1977 GAGE 31

GAGE	DATE	HOUR	MIN	PRECIP INTENSITY MM/HR	ACCUMULATED STORM MM	PRECIPITATION DAY MM	PRECIPITATION YEAR MM
31	3/31/77			NO DATA	0.0	0.0	0.0
31	3/31/77			NO DATA	0.5	0.5	0.5
31	4/ 1/77	15	10	0.0	0.0	0.0	0.5
31	4/ 1/77	15	13	10.7	0.5	0.5	1.0
31	4/ 1/77	15	33	1.6	1.1	1.1	1.6
31	4/ 1/77	15	40	2.3	1.3	1.3	1.8
31	4/ 1/77	15	57	0.9	1.6	1.6	2.1
31	4/ 1/77	16	6	0.0	1.6	1.6	2.1
31	4/ 1/77	16	17	1.5	1.9	1.9	2.4
31	4/ 1/77	17	10	0.6	2.4	2.4	2.9
31	4/ 1/77	17	15	3.2	2.7	2.7	3.2
31	4/ 1/77	17	24	1.8	2.9	2.9	3.4
31	4/ 1/77	17	27	5.3	3.2	3.2	3.7
31	4/ 1/77	18	0	1.0	3.7	3.7	4.3
31	4/ 1/77	18	15	1.1	4.0	4.0	4.5
31	4/ 1/77	18	25	1.6	4.3	4.3	4.8
31	4/ 1/77	18	44	0.8	4.5	4.5	5.1
31	4/ 1/77	18	55	0.0	4.5	4.5	5.1
31	4/ 1/77	19	0	6.4	5.1	5.1	5.6
31	4/ 1/77	19	5	6.4	5.6	5.6	6.1
31	4/ 1/77	19	40	0.5	5.9	5.9	6.4
31	4/ 1/77	19	46	2.7	6.1	6.1	6.7
31	4/ 1/77	20	0	8.0	8.0	8.0	8.5
31	4/ 1/77	20	4	8.0	8.6	8.6	9.1
31	4/ 1/77	20	25	1.5	9.1	9.1	9.6
31	4/ 1/77	20	35	6.4	10.2	10.2	10.7
31	4/ 1/77	20	54	3.4	11.2	11.2	11.7
31	4/ 2/77	1	18	0.0	11.2	0.0	11.7
31	4/ 2/77	1	21	10.7	11.8	0.5	12.3
31	4/ 2/77	1	41	2.4	12.6	1.3	13.1
31	4/ 2/77	2	0	0.0	12.6	1.3	13.1
31	4/ 2/77	2	12	6.7	13.9	2.7	14.4
31	4/ 2/77	6	11	0.1	14.2	2.9	14.7
31	4/ 2/77	6	13	16.0	14.7	3.5	15.2
31	4/ 2/77	6	20	4.6	15.2	4.0	15.7
31	4/ 3/77	20	0	0.0	0.0	0.0	15.7
31	4/ 3/77	20	30	0.5	0.3	0.3	16.0
31	4/ 3/77	20	50	0.8	0.5	0.5	16.3
31	4/ 3/77	21	13	0.7	0.8	0.8	16.5
31	4/ 3/77	22	12	0.8	1.5	1.5	17.3
31	4/ 3/77	23	0	1.6	2.8	2.8	18.5
31	4/ 4/77	0	50	0.3	3.3	0.5	19.0
31	4/ 4/77	2	21	0.0	3.3	0.5	19.0
31	4/ 4/77	2	50	1.6	4.1	1.3	19.8
31	4/ 4/77	3	2	2.5	4.6	1.8	20.3
31	4/ 4/77	4	35	0.2	4.8	2.0	20.6
31	4/ 4/77	6	24	0.8	6.3	3.6	22.1
31	4/ 4/77			NO DATA	0.0	3.6	22.1
31	4/ 4/77			NO DATA	3.8	7.4	25.9
31	4/ 5/77			NO DATA	0.0	0.0	25.9
31	4/ 5/77			NO DATA	1.3	1.3	27.2
31	4/14/77			NO DATA	0.0	0.0	27.2
31	4/14/77			NO DATA	1.3	1.3	28.4
31	4/17/77			NO DATA	0.0	0.0	28.4
31	4/17/77			NO DATA	2.3	2.3	30.7
31	4/20/77	19	40	0.0	0.0	0.0	30.7
31	4/20/77	20	33	0.3	0.3	0.3	31.0
31	4/20/77	20	40	15.5	2.1	2.1	32.8
31	4/20/77	20	50	3.1	2.6	2.6	33.3
31	4/20/77	20	58	1.9	2.8	2.8	33.6
31	4/20/77	21	2	3.9	3.1	3.1	33.8
31	4/20/77	21	35	0.9	3.6	3.6	34.3
31	4/20/77	21	39	15.5	4.7	4.7	35.4
31	4/20/77	21	43	19.4	5.9	5.9	36.7
31	4/20/77	21	47	19.4	7.2	7.2	38.0
31	4/20/77	21	55	3.9	7.8	7.8	38.5
31	4/20/77	22	4	1.7	8.0	8.0	38.7
31	4/20/77	22	8	7.8	8.5	8.5	39.3
31	4/20/77	23	45	0.3	9.0	9.0	39.8
31	4/20/77	23	50	3.1	9.3	9.3	40.0
31	4/21/77	0	10	1.6	9.8	0.5	40.6
31	4/21/77	0	30	2.3	10.6	1.3	41.3
31	4/21/77	0	33	10.3	11.1	1.8	41.8
31	4/21/77	0	40	2.2	11.4	2.1	42.1
31	4/21/77	0	54	2.2	11.9	2.6	42.6
31	4/21/77	0	57	10.3	12.4	3.1	43.1
31	4/21/77	1	20	2.0	13.2	3.9	43.9
31	4/21/77	1	32	1.3	13.4	4.1	44.2
31	4/21/77	1	50	1.7	14.0	4.7	44.7
31	4/21/77	4	10	0.4	15.0	5.7	45.7
31	4/28/77	0	15	0.0	0.0	0.0	45.7
31	4/28/77	0	20	3.2	0.3	0.3	46.0
31	4/28/77	0	56	0.4	0.5	0.5	46.2
31	4/28/77	1	1	6.3	1.1	1.1	46.8
31	4/28/77	1	19	4.4	2.4	2.4	48.1
31	4/28/77	1	30	1.4	2.6	2.6	48.4
31	4/28/77	1	36	2.6	2.9	2.9	48.6
31	4/28/77	1	41	6.4	3.4	3.4	49.2
31	4/28/77	1	52	1.4	3.7	3.7	49.4
31	4/28/77	2	21	1.1	4.2	4.2	50.0
31	4/28/77	2	23	15.9	4.8	4.8	50.5
31	4/28/77	2	45	1.4	5.3	5.3	51.0
31	4/28/77	2	55	6.4	6.3	6.3	52.1
31	5/ 4/77	16	35	0.0	0.0	0.0	52.1
31	5/ 4/77	16	37	54.4	1.8	1.8	53.9
31	5/ 4/77	16	40	21.8	2.9	2.9	55.0

TABLE B1- 7. CONTINUED

GAGE	DATE	HOUR	MIN	PRECIP INTENSITY MM/HR	ACCUMULATED STORM MM	PRECIPITATION DAY MM	PRECIPITATION YEAR MM
31	5/ 4/77	16	44	0.0	2.9	2.9	55.0
31	5/ 4/77	16	48	21.8	4.4	4.4	56.4
31	5/ 4/77	17	10	1.0	4.7	4.7	56.8
31	5/ 4/77	17	26	1.4	5.1	5.1	57.1
31	5/ 4/77	17	32	3.6	5.4	5.4	57.5
31	5/ 4/77	17	37	8.7	6.2	6.2	58.2
31	5/ 4/77	17	40	7.3	6.5	6.5	58.6
31	5/ 4/77	17	44	5.4	6.9	6.9	59.0
31	5/ 4/77	18	0	2.7	7.6	7.6	59.7
31	5/ 4/77	22	1	0.0	0.0	7.6	59.7
31	5/ 4/77	22	4	73.5	3.7	11.3	63.4
31	5/ 4/77	22	10	2.4	3.9	11.5	63.6
31	5/ 4/77	22	26	0.9	4.2	11.8	63.9
31	5/ 4/77	22	35	3.3	4.7	12.3	64.3
31	5/ 4/77	22	43	5.5	5.4	13.0	65.1
31	5/ 4/77	22	52	8.2	6.6	14.2	66.3
31	5/ 4/77	23	2	1.5	6.9	14.5	66.5
31	5/15/77	14	40	0.0	0.0	0.0	66.5
31	5/15/77	14	43	72.3	3.6	3.6	70.2
31	5/15/77	14	45	41.7	5.0	5.0	71.6
31	5/15/77	14	48	16.7	5.8	5.8	72.4
31	5/20/77			NO DATA	0.0	0.0	72.4
31	5/20/77			NO DATA	2.5	2.5	74.9
31	5/21/77	0	26	0.0	0.0	0.0	74.9
31	5/21/77	0	33	4.4	0.5	0.5	75.4
31	5/21/77	2	34	0.0	0.5	0.5	75.4
31	5/21/77	2	44	4.6	1.3	1.3	76.2
31	5/21/77	2	54	3.0	1.8	1.8	76.7
31	5/21/77	3	6	3.8	2.5	2.5	77.5
31	5/21/77	3	27	1.5	3.0	3.0	78.0
31	5/21/77	12	50	0.0	3.0	3.0	78.0
31	5/21/77	12	51	30.5	3.6	3.6	78.5
31	5/21/77	12	55	3.8	3.8	3.8	78.7
31	5/21/77	12	58	45.7	6.1	6.1	81.0
31	5/21/77	13	10	3.8	6.9	6.9	81.8
31	5/21/77	13	24	1.1	7.1	7.1	82.0
31	5/21/77	16	37	0.0	7.1	7.1	82.0
31	5/21/77	16	42	12.2	8.1	8.1	83.1
31	5/21/77	18	0	0.4	8.6	8.6	83.6
31	5/21/77	18	12	10.2	10.7	10.7	85.6
31	5/29/77			NO DATA	0.0	0.0	85.6
31	5/29/77			NO DATA	5.1	5.1	90.7
31	5/30/77			NO DATA	0.0	0.0	90.7
31	5/30/77			NO DATA	6.3	6.3	97.0
31	6/ 8/77			NO DATA	0.0	0.0	97.0
31	6/ 8/77			NO DATA	5.1	5.1	102.1
31	6/11/77			NO DATA	0.0	0.0	102.1
31	6/11/77			NO DATA	6.1	6.1	108.2
31	6/17/77			NO DATA	0.0	0.0	108.2
31	6/17/77			NO DATA	3.6	3.6	111.8
31	6/23/77	8	40	0.0	0.0	0.0	111.8
31	6/23/77	8	43	21.5	1.1	1.1	112.8
31	6/23/77	8	45	16.1	1.6	1.6	113.4
31	6/23/77	8	46	16.1	1.9	1.9	113.6
31	6/23/77	8	52	2.7	2.1	2.1	113.9
31	6/23/77	8	55	26.9	3.5	3.5	115.2
31	6/23/77	8	57	88.7	6.4	6.4	118.2
31	6/23/77	9	0	80.6	10.5	10.5	122.2
31	6/23/77	9	22	6.6	12.9	12.9	124.7
31	6/23/77	9	30	6.0	13.7	13.7	125.5
31	6/23/77	9	43	1.2	14.0	14.0	125.7
31	6/24/77			NO DATA	0.0	0.0	125.7
31	6/24/77			NO DATA	5.1	5.1	130.8
31	6/24/77			NO DATA	0.0	5.1	130.8
31	6/24/77			NO DATA	1.3	6.3	132.1
31	6/30/77			NO DATA	0.0	0.0	132.1
31	6/30/77			NO DATA	1.0	1.0	133.1
31	7/ 3/77	5	0	0.0	0.0	0.0	133.1
31	7/ 3/77	5	1	31.0	0.5	0.5	133.6
31	7/ 3/77	5	5	108.3	7.7	7.7	140.8
31	7/ 3/77	5	11	25.8	10.3	10.3	143.4
31	7/ 3/77	5	13	31.0	11.4	11.4	144.4
31	7/ 3/77	5	15	77.4	13.9	13.9	147.0
31	7/ 3/77	5	17	15.5	14.4	14.4	147.5
31	7/ 3/77	5	20	5.2	14.7	14.7	147.8
31	7/ 3/77	5	54	0.5	15.0	15.0	148.1
31	7/ 3/77	5	57	5.2	15.2	15.2	148.3
31	7/ 3/77	6	3	12.9	16.5	16.5	149.6
31	7/ 6/77	20	36	0.0	0.0	0.0	149.6
31	7/ 6/77	20	37	76.2	1.3	1.3	150.9
31	7/ 6/77	20	42	167.6	15.2	15.2	164.8
31	7/ 6/77	20	45	35.6	17.0	17.0	166.6
31	7/ 6/77	20	55	7.6	18.3	18.3	167.9
31	7/ 6/77	21	13	1.7	18.8	18.8	168.4
31	7/ 6/77	21	19	7.6	19.6	19.6	169.2
31	7/ 6/77	21	22	15.2	20.3	20.3	169.9
31	7/ 6/77	21	23	76.1	21.6	21.6	171.2
31	7/ 6/77	21	26	25.4	22.9	22.9	172.5
31	7/ 6/77	21	30	22.9	24.4	24.4	174.0

TABLE B1- 7. CONTINUED

GAGE	DATE	HOUR	MIN	PRECIP INTENSITY MM/HR	ACCUMULATED STORM MM	PRECIPITATION DAY MM	PRECIPITATION YEAR MM
31	7/ 6/77	21	40	3.0	24.9	24.9	174.5
31	7/ 6/77	21	45	3.0	25.1	25.1	174.7
31	7/ 6/77	23	31	0.1	25.4	25.4	175.0
31	7/11/77			NO DATA	0.0	0.0	175.0
31	7/11/77			NO DATA	3.3	3.3	178.3
31	7/15/77	19	25	0.0	0.0	0.0	178.3
31	7/15/77	19	26	47.2	0.8	0.8	179.1
31	7/15/77	19	30	11.8	1.6	1.6	179.9
31	7/15/77	19	32	23.6	2.4	2.4	180.7
31	7/15/77	19	35	89.1	6.8	6.8	185.1
31	7/15/77	19	38	183.4	16.0	16.0	194.3
31	7/15/77	19	42	86.5	21.8	21.8	200.1
31	7/15/77	19	45	26.2	23.1	23.1	201.4
31	7/15/77	19	49	51.1	26.5	26.5	204.8
31	7/15/77	20	0	10.0	28.3	28.3	206.6
31	7/15/77	20	4	19.7	29.6	29.6	207.9
31	7/15/77	20	5	62.9	30.7	30.7	209.0
31	7/15/77	20	11	13.1	32.0	32.0	210.3
31	7/15/77	20	30	3.3	33.0	33.0	211.3
31	7/17/77	12	20	0.0	0.0	0.0	211.3
31	7/17/77	12	50	3.0	1.5	1.5	212.8
31	7/17/77	13	2	2.5	2.0	2.0	213.4
31	7/17/77	13	15	1.2	2.3	2.3	213.6
31	7/17/77	13	25	3.0	2.8	2.8	214.1
31	7/17/77	14	10	0.7	3.3	3.3	214.6
31	7/17/77	17	5	0.0	3.3	3.3	214.6
31	7/17/77	17	7	22.9	4.1	4.1	215.4
31	7/17/77	18	51	0.3	4.6	4.6	215.9
31	7/17/77	20	40	0.1	4.8	4.8	216.1
31	7/21/77			NO DATA	0.0	0.0	216.1
31	7/21/77			NO DATA	12.7	12.7	228.8
31	7/24/77			NO DATA	0.0	0.0	228.8
31	7/24/77			NO DATA	11.4	11.4	240.3
31	7/28/77			NO DATA	0.0	0.0	240.3
31	7/28/77			NO DATA	1.5	1.5	241.8
31	7/30/77			NO DATA	0.0	0.0	241.8
31	7/30/77			NO DATA	2.5	2.5	244.3
31	8/ 1/77	18	50	0.0	0.0	0.0	244.3
31	8/ 1/77	18	53	55.0	2.7	2.7	247.1
31	8/ 1/77	18	54	45.0	3.5	3.5	247.8
31	8/ 1/77	18	55	210.0	7.0	7.0	251.3
31	8/ 1/77	18	57	15.0	7.5	7.5	251.8
31	8/ 1/77	18	59	52.5	9.2	9.2	253.6
31	8/ 1/77	19	10	10.9	11.2	11.2	255.6
31	8/ 1/77	19	12	30.0	12.2	12.2	256.6
31	8/ 1/77	19	14	75.0	14.7	14.7	259.1
31	8/ 1/77	19	17	50.0	17.2	17.2	261.6
31	8/ 1/77	19	20	15.0	18.0	18.0	262.3
31	8/ 1/77	19	23	5.0	18.2	18.2	262.6
31	8/ 1/77	19	28	6.0	18.7	18.7	263.1
31	8/ 1/77	19	34	2.5	19.0	19.0	263.3
31	8/ 1/77	19	39	15.0	20.2	20.2	264.6
31	8/ 1/77	19	43	116.2	28.0	28.0	272.3
31	8/ 1/77	19	50	2.1	28.2	28.2	272.6
31	8/ 1/77	20	0	3.0	28.7	28.7	273.1
31	8/ 1/77	20	8	1.9	29.0	29.0	273.3
31	8/ 1/77	20	24	2.8	29.7	29.7	274.1
31	8/ 1/77	20	27	15.0	30.5	30.5	274.8
31	8/ 1/77	20	40	2.3	31.0	31.0	275.3
31	8/ 5/77	11	0	0.0	0.0	0.0	275.3
31	8/ 5/77	11	10	7.8	1.3	1.3	276.6
31	8/ 5/77	11	17	6.7	2.1	2.1	277.4
31	8/ 5/77	11	22	12.4	3.1	3.1	278.4
31	8/ 5/77	11	28	18.1	4.9	4.9	280.3
31	8/ 5/77	11	33	43.5	8.5	8.5	283.9
31	8/ 5/77	11	38	21.8	10.4	10.4	285.7
31	8/ 5/77	11	41	10.4	10.9	10.9	286.2
31	8/ 5/77	12	3	3.5	12.2	12.2	287.5
31	8/ 5/77	12	6	5.2	12.4	12.4	287.8
31	8/ 5/77	12	24	0.9	12.7	12.7	288.0
31	8/ 5/77	12	30	2.6	13.0	13.0	288.3
31	8/ 8/77	0	5	0.0	0.0	0.0	288.3
31	8/ 8/77	0	7	91.4	3.0	3.0	291.3
31	8/ 8/77	0	10	10.2	3.6	3.6	291.8
31	8/ 8/77	0	12	22.9	4.3	4.3	292.6
31	8/ 8/77	0	14	22.9	5.1	5.1	293.4
31	8/ 8/77	0	15	15.2	5.3	5.3	293.6
31	8/ 8/77	0	17	30.5	6.3	6.3	294.6
31	8/ 8/77	0	24	4.4	6.9	6.9	295.1
31	8/ 8/77	0	32	1.9	7.1	7.1	295.4
31	8/ 8/77	0	42	1.5	7.4	7.4	295.6
31	8/ 8/77	0	53	1.4	7.6	7.6	295.9
31	8/ 8/77	1	3	10.7	9.4	9.4	297.7
31	8/ 8/77	1	5	91.4	12.4	12.4	300.7
31	8/ 8/77	1	6	472.4	20.3	20.3	308.6
31	8/ 9/77	5	20	0.0	0.0	0.0	308.6
31	8/ 9/77	5	28	1.9	0.2	0.2	308.8
31	8/ 9/77	6	11	1.0	1.0	1.0	309.6
31	8/ 9/77	6	57	0.0	1.0	1.0	309.6
31	8/ 9/77	7	16	0.8	1.2	1.2	309.8
31	8/ 9/77	7	28	1.2	1.5	1.5	310.1
31	8/ 9/77	7	40	6.2	2.7	2.7	311.3
31	8/ 9/77	7	48	5.6	3.5	3.5	312.1

TABLE B1- 7. CONTINUED

GAGE	DATE	HOUR	MIN	PRECIP INTENSITY MM/HR	ACCUMULATED PRECIPITATION STORM MM	DAY MM	YEAR MM
31	8/ 9/77	7	58	5.9	4.4	4.4	313.0
31	8/ 9/77	8	7	9.9	5.9	5.9	314.5
31	8/ 9/77	8	17	8.9	7.4	7.4	316.0
31	8/ 9/77	8	23	4.9	7.9	7.9	316.5
31	8/ 9/77	8	39	2.8	8.6	8.6	317.2
31	8/ 9/77	8	45	4.9	9.1	9.1	317.7
31	8/13/77			NO DATA	0.0	0.0	317.7
31	8/13/77			NO DATA	5.1	5.1	322.8
31	8/15/77	17	50	0.0	0.0	0.0	322.8
31	8/15/77	17	57	4.5	0.5	0.5	323.3
31	8/15/77	18	6	10.5	2.1	2.1	324.9
31	8/15/77	18	8	31.5	3.1	3.1	326.0
31	8/15/77	18	16	11.8	4.7	4.7	327.5
31	8/15/77	18	20	7.9	5.2	5.2	328.1
31	8/15/77	18	25	3.1	5.5	5.5	328.3
31	8/15/77	19	3	1.2	6.3	6.3	329.1
31	8/15/77	19	7	3.9	6.6	6.6	329.4
31	8/15/77	19	15	19.7	9.2	9.2	332.0
31	8/15/77	19	21	5.2	9.7	9.7	332.5
31	8/15/77	19	26	3.1	10.0	10.0	332.8
31	8/15/77	19	43	1.9	10.5	10.5	333.3
31	8/15/77	19	54	4.3	11.3	11.3	334.1
31	8/15/77	20	17	2.7	12.3	12.3	335.2
31	8/15/77	20	21	3.9	12.6	12.6	335.4
31	8/15/77	20	26	3.1	12.9	12.9	335.7
31	8/15/77	20	33	18.0	15.0	15.0	337.8
31	8/15/77	20	36	5.2	15.2	15.2	338.0
31	8/15/77	20	49	1.2	15.5	15.5	338.3
31	8/15/77	21	45	1.1	16.5	16.5	339.3
31	8/15/77	21	52	9.0	17.6	17.6	340.4
31	8/15/77	21	55	42.0	19.7	19.7	342.5
31	8/15/77	21	58	21.0	20.7	20.7	343.5
31	8/15/77	22	0	47.2	22.3	22.3	345.1
31	8/15/77	22	3	15.7	23.1	23.1	345.9
31	8/15/77	22	11	135.8	41.2	41.2	364.0
31	8/15/77	22	15	3.9	41.5	41.5	364.3
31	8/15/77	22	29	9.0	43.6	43.6	366.4
31	8/15/77	22	31	7.9	43.8	43.8	366.6
31	8/15/77	23	29	1.9	45.7	45.7	368.5
31	8/16/77	0	8	2.4	47.2	1.6	370.0
31	8/16/77	0	40	1.0	47.8	2.1	370.6
31	8/19/77			NO DATA	0.0	0.0	370.6
31	8/19/77			NO DATA	7.6	7.6	378.2
31	8/25/77	21	0	0.0	0.0	0.0	378.2
31	8/25/77	21	30	2.6	1.3	1.3	379.5
31	8/25/77	21	32	15.7	1.8	1.8	380.0
31	8/25/77	21	34	7.8	2.1	2.1	380.3
31	8/25/77	21	35	15.7	2.4	2.4	380.5
31	8/25/77	21	37	15.7	2.9	2.9	381.1
31	8/25/77	21	45	13.7	4.7	4.7	382.9
31	8/25/77	21	57	1.3	5.0	5.0	383.2
31	8/25/77	22	4	4.5	5.5	5.5	383.7
31	8/25/77	22	27	0.7	5.8	5.8	383.9
31	8/25/77	22	32	3.1	6.0	6.0	384.2
31	8/25/77	22	34	23.5	6.8	6.8	385.0
31	8/25/77	22	36	7.8	7.1	7.1	385.3
31	8/25/77	22	40	27.5	8.9	8.9	387.1
31	8/25/77	22	44	27.5	10.7	10.7	388.9
31	8/25/77	22	46	7.8	11.0	11.0	389.2
31	8/25/77	22	49	57.5	13.9	13.9	392.1
31	8/25/77	22	51	31.4	14.9	14.9	393.1
31	8/25/77	22	54	15.7	15.7	15.7	393.9
31	8/25/77	23	1	2.2	16.0	16.0	394.1
31	8/26/77	0	8	0.0	16.0	0.0	394.1
31	8/26/77	0	20	2.6	16.5	0.5	394.7
31	8/26/77	1	39	0.0	16.5	0.5	394.7
31	8/26/77	1	41	23.5	17.3	1.3	395.5
31	8/26/77	1	44	5.2	17.5	1.6	395.7
31	8/27/77	19	48	0.0	0.0	0.0	395.7
31	8/27/77	19	50	15.6	0.5	0.5	396.2
31	8/27/77	20	5	1.0	0.8	0.8	396.5
31	8/27/77	20	14	1.7	1.0	1.0	396.8
31	8/27/77	20	27	1.2	1.3	1.3	397.0
31	8/27/77	20	31	3.9	1.6	1.6	397.3
31	8/27/77	20	37	2.6	1.8	1.8	397.5
31	8/27/77	20	43	2.6	2.1	2.1	397.8
31	8/27/77	20	46	5.2	2.3	2.3	398.1
31	8/27/77	20	57	1.4	2.6	2.6	398.3
31	8/27/77	21	8	2.8	3.1	3.1	398.8
31	8/27/77	21	14	2.6	3.4	3.4	399.1
31	8/27/77	22	43	0.0	3.4	3.4	399.1
31	8/27/77	22	46	5.2	3.6	3.6	399.4
31	8/27/77	22	48	23.4	4.4	4.4	400.1
31	8/27/77	22	53	6.2	4.9	4.9	400.7
31	8/27/77	23	10	1.8	5.5	5.5	401.2
31	8/27/77	23	20	3.1	6.0	6.0	401.7
31	8/27/77	23	30	1.6	6.2	6.2	402.0
31	8/27/77	23	36	2.6	6.5	6.5	402.2
31	8/27/77	23	47	4.3	7.3	7.3	403.0
31	8/28/77	0	15	1.7	8.1	0.8	403.8
31	8/28/77	0	17	23.4	8.8	1.6	404.6
31	8/28/77	0	19	7.8	9.1	1.8	404.8
31	8/28/77	0	25	10.4	10.1	2.9	405.9
31	8/28/77	0	38	9.6	12.2	4.9	407.9
31	8/28/77	1	4	1.8	13.0	5.7	408.7
31	8/28/77	1	10	2.6	13.3	6.0	409.0
31	8/28/77	1	47	0.8	13.8	6.5	409.5
31	8/28/77	2	0	2.4	14.3	7.0	410.0
31	8/28/77	2	5	3.1	14.6	7.3	410.3

TABLE B1- 7. CONTINUED

GAGE	DATE	HOUR	MIN	PRECIP INTENSITY MM/HR	ACCUMULATED STORM MM	PRECIPITATION DAY MM	PRECIPITATION YEAR MM
31	8/28/77	2	10	3.1	14.8	7.5	410.5
31	8/28/77	2	23	2.4	15.4	8.1	411.1
31	8/28/77	2	27	7.8	15.9	8.6	411.6
31	8/28/77	2	32	6.2	16.4	9.1	412.1
31	8/28/77	2	43	1.4	16.7	9.4	412.4
31	8/28/77	3	2	1.6	17.2	9.9	412.9
31	8/28/77	3	30	1.7	18.0	10.7	413.7
31	8/28/77	4	30	0.3	18.2	10.9	413.9
31	8/28/77	4	50	3.1	19.3	12.0	415.0
31	8/28/77	6	30	0.2	19.5	12.2	415.2
31	8/28/77	6	40	1.6	19.8	12.5	415.5
31	8/28/77	6	53	1.2	20.0	12.7	415.7
31	8/28/77	8	10	0.2	20.3	13.0	416.0
31	8/28/77	8	15	6.2	20.8	13.5	416.5
31	8/28/77	9	20	0.5	21.3	14.1	417.0
31	8/31/77	2	30	0.0	0.0	0.0	417.0
31	8/31/77	2	32	38.1	1.3	1.3	418.3
31	8/31/77	2	35	15.2	2.0	2.0	419.1
31	8/31/77	3	40	0.5	2.5	2.5	419.6
31	8/31/77	3	44	19.1	3.8	3.8	420.9
31	8/31/77	3	50	5.1	4.3	4.3	421.4
31	8/31/77	4	37	0.3	4.6	4.6	421.6
31	8/31/77	5	0	2.0	5.3	5.3	422.4
31	8/31/77	5	17	0.9	5.6	5.6	422.6
31	8/31/77	5	53	0.4	5.8	5.8	422.9
31	8/31/77	5	56	10.2	6.3	6.3	423.4
31	8/31/77	5	59	10.2	6.9	6.9	423.9
31	8/31/77	6	16	9.0	9.4	9.4	426.4
31	8/31/77	6	25	5.1	10.2	10.2	427.2
31	8/31/77	6	30	9.1	10.9	10.9	428.0
31	8/31/77	6	44	4.4	11.9	11.9	429.0
31	8/31/77	7	10	2.9	13.2	13.2	430.2
31	8/31/77	7	20	1.5	13.5	13.5	430.5
31	8/31/77	8	0	2.3	15.0	15.0	432.0
31	8/31/77	8	10	1.5	15.2	15.2	432.3
31	9/ 3/77	12	30	0.0	0.0	0.0	432.3
31	9/ 3/77	13	0	2.9	1.5	1.5	433.7
31	9/ 3/77	13	22	4.0	2.9	2.9	435.2
31	9/ 3/77	13	35	2.7	3.5	3.5	435.8
31	9/ 3/77	13	42	7.5	4.4	4.4	436.7
31	9/ 3/77	14	10	3.1	5.8	5.8	438.1
31	9/ 9/77			NO DATA	0.0	0.0	438.1
31	9/ 9/77			NO DATA	2.5	2.5	440.7
31	9/12/77			NO DATA	0.0	0.0	440.7
31	9/12/77			NO DATA	2.8	2.8	443.5
31	9/15/77	8	10	0.0	0.0	0.0	443.5
31	9/15/77	8	24	1.4	0.3	0.3	443.8
31	9/15/77	8	36	6.6	1.7	1.7	445.1
31	9/15/77	8	43	2.8	2.0	2.0	445.4
31	9/15/77	8	53	2.0	2.3	2.3	445.8
31	9/15/77	9	6	3.0	3.0	3.0	446.4
31	9/15/77	9	26	1.0	3.3	3.3	446.8
31	9/17/77	5	20	0.0	0.0	0.0	446.8
31	9/17/77	6	14	5.7	5.1	5.1	451.9
31	9/17/77	6	18	7.7	5.6	5.6	452.4
31	9/17/77	6	25	6.6	6.4	6.4	453.2
31	9/17/77	6	50	3.1	7.7	7.7	454.4
31	9/17/77	19	7	0.0	7.7	7.7	454.4
31	9/17/77	19	8	46.1	8.5	8.5	455.2
31	9/17/77	19	10	207.7	15.4	15.4	462.1
31	9/17/77	19	13	25.6	16.7	16.7	463.4
31	9/17/77	19	16	10.3	17.2	17.2	463.9
31	9/17/77	19	38	1.4	17.7	17.7	464.4
31	9/17/77	19	43	40.0	21.0	21.0	467.8
31	9/17/77	19	47	111.5	28.5	28.5	475.2
31	9/17/77	21	33	0.3	29.0	29.0	475.7
31	9/17/77	21	36	10.3	29.5	29.5	476.2
31	9/17/77	21	44	1.9	29.7	29.7	476.5
31	9/17/77	21	46	30.8	30.8	30.8	477.5
31	9/17/77	22	12	0.6	31.0	31.0	477.8
31	9/17/77	22	15	5.1	31.3	31.3	478.0
31	9/17/77	22	18	5.1	31.5	31.5	478.3
31	9/17/77	22	22	11.5	32.3	32.3	479.1
31	9/17/77	22	24	30.8	33.3	33.3	480.1
31	9/17/77	22	27	97.4	38.2	38.2	485.0
31	9/17/77	22	35	11.5	39.7	39.7	486.5
31	9/17/77	22	37	7.7	40.0	40.0	486.8
31	9/17/77	22	39	7.7	40.3	40.3	487.0
31	9/17/77	22	45	2.6	40.5	40.5	487.3
31	9/17/77	22	50	9.2	41.3	41.3	488.0
31	9/17/77	22	54	7.7	41.8	41.8	488.5
31	9/17/77	22	56	15.4	42.3	42.3	489.1
31	9/18/77	4	27	0.0	42.3	0.0	489.1
31	9/18/77	4	30	10.3	42.8	0.5	489.6
31	9/18/77	4	35	3.1	43.1	0.8	489.8
31	9/18/77	4	49	1.1	43.3	1.0	490.1
31	9/18/77	4	52	5.1	43.6	1.3	490.3
31	9/18/77	5	10	0.9	43.8	1.5	490.6
31	9/18/77	5	26	10.6	46.7	4.4	493.4
31	9/18/77	5	31	12.3	47.7	5.4	494.4
31	9/18/77	5	33	7.7	47.9	5.6	494.7
31	9/18/77	5	38	3.1	48.2	5.9	495.0
31	9/18/77	5	42	7.7	48.7	6.4	495.5
31	9/18/77	5	45	10.3	49.2	6.9	496.0
31	9/18/77	5	49	3.8	49.5	7.2	496.2
31	9/18/77	5	53	19.2	50.8	8.5	497.5
31	9/18/77	6	11	1.7	51.3	9.0	498.0
31	9/18/77	6	14	5.1	51.5	9.2	498.3

TABLE B1- 7. CONCLUDED

GAGE	DATE	HOUR	MIN	PRECIP INTENSITY MM/HR	ACCUMULATED STORM MM	PRECIPITATION DAY MM	PRECIPITATION YEAR MM
31	9/18/77	7	3	0.6	52.0	9.7	498.8
31	9/18/77	7	5	30.8	53.1	10.8	499.8
31	9/18/77	7	7	23.1	53.8	11.5	500.6
31	9/18/77	7	10	5.1	54.1	11.8	500.9
31	9/18/77	7	45	0.4	54.4	12.1	501.1
31	9/23/77	8	0	0.0	0.0	0.0	501.1
31	9/23/77	8	25	1.5	0.6	0.6	501.7
31	9/23/77	8	54	1.9	1.5	1.5	502.7
31	9/23/77	9	20	0.7	1.9	1.9	503.0
31	9/23/77	9	41	1.8	2.5	2.5	503.6
31	9/23/77	10	9	4.0	4.3	4.3	505.4
31	9/23/77	10	24	3.7	5.3	5.3	506.4
31	9/23/77	10	30	3.1	5.6	5.6	506.7
31	9/23/77	10	40	1.9	5.9	5.9	507.0
31	9/23/77	10	56	1.2	6.2	6.2	507.3
31	9/23/77	11	12	2.3	6.8	6.8	507.9
31	9/23/77	11	21	2.1	7.1	7.1	508.2
31	9/23/77	11	30	2.1	7.4	7.4	508.5
31	9/23/77	12	0	1.9	8.4	8.4	509.5
31	9/23/77	15	25	0.1	8.7	8.7	509.8
31	9/23/77	15	36	1.7	9.0	9.0	510.1
31	9/23/77	17	59	0.0	9.0	9.0	510.1
31	9/23/77	18	4	11.1	9.9	9.9	511.0
31	9/23/77	18	10	6.2	10.5	10.5	511.6
31	9/23/77	18	40	1.2	11.1	11.1	512.2
31	9/23/77	21	33	0.1	11.4	11.4	512.6
31	9/23/77	21	42	8.3	12.7	12.7	513.8
31	9/23/77	21	46	13.9	13.6	13.6	514.7
31	9/23/77	21	51	14.9	14.9	14.9	516.0
31	9/23/77	21	58	18.6	17.0	17.0	518.1
31	9/30/77	1	0	0.0	0.0	0.0	518.1
31	9/30/77	1	18	3.3	1.0	1.0	519.1
31	9/30/77	1	26	5.6	1.8	1.8	519.9
31	9/30/77	1	32	7.5	2.5	2.5	520.6
31	9/30/77	1	38	22.6	4.8	4.8	522.9
31	9/30/77	1	40	30.1	5.8	5.8	523.9
31	9/30/77	1	42	60.2	7.8	7.8	525.9
31	9/30/77	1	47	27.1	10.0	10.0	528.2
31	9/30/77	1	51	37.7	12.6	12.6	530.7
31	9/30/77	1	55	7.5	13.1	13.1	531.2
31	9/30/77	1	57	67.8	15.3	15.3	533.4
31	9/30/77	2	3	12.6	16.6	16.6	534.7
31	9/30/77	2	6	5.0	16.8	16.8	534.9
31	9/30/77	2	16	4.5	17.6	17.6	535.7
31	9/30/77	2	30	1.1	17.8	17.8	535.9
31	9/30/77	16	55	0.0	18.1	18.1	536.2
31	9/30/77	17	7	3.8	18.8	18.8	536.9
31	9/30/77	18	53	0.4	19.6	19.6	537.7
31	9/30/77	19	23	2.5	20.8	20.8	539.0
31	9/30/77	19	50	1.1	21.3	21.3	539.5

GAGE	DATE	HOUR	MIN	PRECIP INTENSITY MM/HR	ACCUMULATED STORM MM	PRECIPITATION DAY MM	PRECIPITATION YEAR MM
31	10/ 7/77			NO DATA	0.0	0.0	539.5
31	10/ 7/77			NO DATA	27.9	27.9	567.4
31	10/10/77			NO DATA	0.0	0.0	567.4
31	10/10/77			NO DATA	5.6	5.6	573.0
31	10/21/77			NO DATA	0.0	0.0	573.0
31	10/21/77			NO DATA	6.3	6.3	579.3
31	10/22/77			NO DATA	0.0	0.0	579.3
31	10/22/77			NO DATA	3.8	3.8	583.1
31	10/23/77			NO DATA	0.0	0.0	583.1
31	10/23/77			NO DATA	30.2	30.2	613.4
31	10/24/77			NO DATA	0.0	0.0	613.4
31	10/24/77			NO DATA	7.6	7.6	621.0
31	10/30/77			NO DATA	0.0	0.0	621.0
31	10/30/77			NO DATA	2.0	2.0	623.0
31	10/31/77			NO DATA	0.0	0.0	623.0
31	10/31/77			NO DATA	12.2	12.2	635.2
31	11/ 1/77			NO DATA	0.0	0.0	635.2
31	11/ 1/77			NO DATA	1.0	1.0	636.2
31	11/ 3/77			NO DATA	0.0	0.0	636.2
31	11/ 3/77			NO DATA	2.0	2.0	638.3
31	11/ 9/77			NO DATA	0.0	0.0	638.3
31	11/ 9/77			NO DATA	2.3	2.3	640.5
31	11/20/77			NO DATA	0.0	0.0	640.5
31	11/20/77			NO DATA	1.8	1.8	642.3

TABLE B1- 8. FOUR MILE CREEK WATERSHED PRECIPITATION DATA FOR 1977 GAGE 32

GAGE	DATE	HOUR	MIN	PRECIP INTENSITY MM/HR	ACCUMULATED STORM MM	PRECIPITATION DAY MM	PRECIPITATION YEAR MM
32	4/ 1/77	15	0	0.0	0.0	0.0	0.0
32	4/ 1/77	15	35	0.9	0.5	0.5	0.5
32	4/ 1/77	16	3	0.0	0.5	0.5	0.5
32	4/ 1/77	16	10	6.7	1.3	1.3	1.3
32	4/ 1/77	17	40	0.0	1.3	1.3	1.3
32	4/ 1/77	18	10	1.0	1.8	1.8	1.8
32	4/ 1/77	18	33	2.0	2.6	2.6	2.6
32	4/ 1/77	18	47	1.1	2.8	2.8	2.8
32	4/ 1/77	18	54	8.9	3.9	3.9	3.9
32	4/ 1/77	19	36	0.0	3.9	3.9	3.9
32	4/ 1/77	19	42	5.2	4.4	4.4	4.4
32	4/ 1/77	19	50	9.7	5.7	5.7	5.7
32	4/ 1/77	19	56	7.8	6.5	6.5	6.5
32	4/ 1/77	20	0	11.6	7.2	7.2	7.2
32	4/ 1/77	20	4	3.9	7.5	7.5	7.5
32	4/ 1/77	20	17	1.2	7.8	7.8	7.8
32	4/ 1/77	20	23	2.6	8.0	8.0	8.0
32	4/ 1/77	20	35	5.2	9.1	9.1	9.1
32	4/ 1/77	20	54	4.1	10.3	10.3	10.3
32	4/ 2/77	1	10	0.1	10.9	0.5	10.9
32	4/ 2/77	1	15	9.3	11.6	1.3	11.6
32	4/ 2/77	1	30	1.0	11.9	1.6	11.9
32	4/ 2/77	1	50	0.8	12.2	1.8	12.2
32	4/ 2/77	2	0	6.2	13.2	2.8	13.2
32	4/ 2/77	2	30	1.6	14.0	3.6	14.0
32	4/ 2/77			NO DATA	0.0	3.6	14.0
32	4/ 2/77			NO DATA	2.5	6.2	16.5
32	4/ 3/77	19	30	0.0	0.0	0.0	16.5
32	4/ 3/77	20	10	1.1	0.8	0.8	17.3
32	4/ 3/77	20	30	1.5	1.3	1.3	17.8
32	4/ 3/77	21	0	0.5	1.5	1.5	18.0
32	4/ 3/77	21	30	1.5	2.3	2.3	18.8
32	4/ 3/77	22	0	1.0	2.8	2.8	19.3
32	4/ 3/77	22	50	1.8	4.3	4.3	20.8
32	4/ 3/77	23	0	0.0	4.3	4.3	20.8
32	4/ 3/77	23	30	0.5	4.6	4.6	21.1
32	4/ 4/77	1	50	0.0	4.6	0.0	21.1
32	4/ 4/77	2	30	0.8	5.1	0.5	21.6
32	4/ 4/77	3	20	1.5	6.3	1.8	22.9
32	4/ 4/77	6	15	0.2	6.9	2.3	23.4
32	4/ 4/77	7	0	1.0	7.6	3.0	24.1
32	4/ 4/77			NO DATA	0.0	3.0	24.1
32	4/ 4/77			NO DATA	3.8	6.9	27.9
32	4/ 5/77			NO DATA	0.0	0.0	27.9
32	4/ 5/77			NO DATA	1.3	1.3	29.2
32	4/14/77			NO DATA	0.0	0.0	29.2
32	4/14/77			NO DATA	1.3	1.3	30.5
32	4/17/77			NO DATA	0.0	0.0	30.5
32	4/17/77			NO DATA	3.6	3.6	34.0
32	4/19/77	16	54	0.0	0.0	0.0	34.0
32	4/19/77	16	56	45.7	1.5	1.5	35.6
32	4/19/77	16	58	129.5	5.8	5.8	39.9
32	4/19/77	17	0	137.1	10.4	10.4	44.4
32	4/19/77	17	3	25.4	11.7	11.7	45.7
32	4/19/77	17	4	137.1	14.0	14.0	48.0
32	4/19/77	17	11	39.2	18.5	18.5	52.6
32	4/19/77	17	25	7.6	20.3	20.3	54.4
32	4/20/77	20	31	0.0	0.0	0.0	54.4
32	4/20/77	20	33	25.9	0.9	0.9	55.2
32	4/20/77	20	35	8.6	1.2	1.2	55.5
32	4/20/77	20	41	11.5	2.3	2.3	56.7
32	4/20/77	20	46	6.9	2.9	2.9	57.2
32	4/20/77	20	54	4.3	3.5	3.5	57.8
32	4/20/77	21	2	2.2	3.7	3.7	58.1
32	4/20/77	21	27	0.7	4.0	4.0	58.4
32	4/20/77	21	45	2.9	4.9	4.9	59.2
32	4/20/77	21	50	3.5	5.2	5.2	59.5
32	4/20/77	21	55	3.5	5.5	5.5	59.8
32	4/20/77	22	3	2.2	5.8	5.8	60.1
32	4/20/77	22	13	5.2	6.6	6.6	61.0
32	4/20/77	23	42	0.0	6.6	6.6	61.0
32	4/20/77	23	50	2.2	6.9	6.9	61.3
32	4/21/77	0	8	1.0	7.2	0.3	61.5
32	4/21/77	0	29	4.9	8.9	2.0	63.3
32	4/21/77	0	33	8.6	9.5	2.6	63.8
32	4/21/77	0	45	1.4	9.8	2.9	64.1
32	4/21/77	0	55	5.2	10.6	3.7	65.0
32	4/21/77	1	10	1.2	10.9	4.0	65.3
32	4/21/77	1	12	8.6	11.2	4.3	65.6
32	4/21/77	1	18	2.9	11.5	4.6	65.9
32	4/21/77	1	36	1.9	12.1	5.2	66.4
32	4/21/77	1	52	2.2	12.7	5.8	67.0
32	4/21/77	3	10	0.2	12.9	6.0	67.3
32	4/21/77	4	0	0.0	12.9	6.0	67.3
32	4/21/77	4	17	2.0	13.5	6.6	67.9
32	4/21/77	5	46	0.0	13.5	6.6	67.9
32	4/21/77	7	10	1.2	15.2	8.3	69.6
32	4/28/77	0	22	0.0	0.0	0.0	69.6
32	4/28/77	0	25	5.5	0.3	0.3	69.9
32	4/28/77	0	34	1.8	0.6	0.6	70.1
32	4/28/77	0	36	16.6	1.1	1.1	70.7
32	4/28/77	0	56	0.8	1.4	1.4	71.0
32	4/28/77	1	15	4.4	2.8	2.8	72.4
32	4/28/77	1	25	3.3	3.3	3.3	72.9
32	4/28/77	1	40	1.1	3.6	3.6	73.2
32	4/28/77	2	0	4.1	5.0	5.0	74.6

TABLE B1- 8. CONTINUED

GAGE	DATE	HOUR	MIN	PRECIP INTENSITY MM/HR	ACCUMULATED STORM MM	PRECIPITATION DAY MM	PRECIPITATION YEAR MM
32	4/28/77	2	27	0.0	5.0	5.0	74.6
32	4/28/77	2	55	0.6	5.2	5.2	74.8
32	4/28/77	3	2	9.5	6.3	6.3	75.9
32	5/ 3/77	20	20	0.0	0.0	0.0	75.9
32	5/ 3/77	20	30	4.8	0.8	0.8	76.7
32	5/ 3/77	20	43	1.2	1.1	1.1	77.0
32	5/ 3/77	21	33	0.0	1.1	1.1	77.0
32	5/ 3/77	21	40	2.3	1.3	1.3	77.3
32	5/ 3/77	24	0	0.2	1.9	1.9	77.8
32	5/ 4/77	5	50	0.0	1.9	0.0	77.8
32	5/ 4/77	6	20	1.6	2.7	0.8	78.6
32	5/ 4/77	7	43	0.0	2.7	0.8	78.6
32	5/ 4/77	7	46	15.9	3.5	1.6	79.4
32	5/ 4/77	8	43	0.3	3.7	1.9	79.7
32	5/ 4/77	8	46	63.7	6.9	5.0	82.8
32	5/ 4/77	8	50	15.9	8.0	6.1	83.9
32	5/ 4/77	16	30	0.0	8.0	6.1	83.9
32	5/ 4/77	16	40	1.6	8.2	6.4	84.2
32	5/ 4/77	17	18	0.4	8.5	6.6	84.4
32	5/ 4/77	17	23	12.7	9.6	7.7	85.5
32	5/ 4/77	17	25	15.9	10.1	8.2	86.0
32	5/ 4/77	17	30	3.2	10.4	8.5	86.3
32	5/ 4/77	17	45	2.1	10.9	9.0	86.8
32	5/ 4/77	17	46	47.8	11.7	9.8	87.6
32	5/ 4/77	17	51	6.4	12.2	10.4	88.2
32	5/ 4/77	22	4	0.0	12.2	10.4	88.2
32	5/ 4/77	22	6	71.7	14.6	12.7	90.5
32	5/ 4/77	22	12	2.7	14.9	13.0	90.8
32	5/ 4/77	22	24	1.3	15.1	13.3	91.1
32	5/ 4/77	22	37	3.7	15.9	14.1	91.9
32	5/ 4/77	22	55	5.3	17.5	15.7	93.5
32	5/15/77	14	40	0.0	0.0	0.0	93.5
32	5/15/77	14	43	70.9	3.5	3.5	97.0
32	5/15/77	14	47	7.1	4.0	4.0	97.5
32	5/15/77	18	7	0.0	4.0	4.0	97.5
32	5/15/77	18	10	14.2	4.7	4.7	98.2
32	5/15/77	18	40	0.9	5.2	5.2	98.7
32	5/15/77	19	48	0.0	5.2	5.2	98.7
32	5/15/77	19	50	35.5	6.4	6.4	99.9
32	5/15/77	19	56	4.7	6.9	6.9	100.3
32	5/17/77			NO DATA	0.0	0.0	100.3
32	5/17/77			NO DATA	2.0	2.0	102.4
32	5/20/77			NO DATA	0.0	0.0	102.4
32	5/20/77			NO DATA	5.1	5.1	107.4
32	5/21/77	12	49	0.0	0.0	0.0	107.4
32	5/21/77	12	50	32.8	0.5	0.5	108.0
32	5/21/77	12	54	61.5	4.7	4.7	112.1
32	5/21/77	12	55	114.9	6.6	6.6	114.0
32	5/21/77	12	59	53.3	10.1	10.1	117.6
32	5/21/77	13	10	3.0	10.7	10.7	118.1
32	5/21/77	16	35	0.0	10.7	10.7	118.1
32	5/21/77	16	45	1.6	10.9	10.9	118.4
32	5/21/77	16	50	6.6	11.5	11.5	118.9
32	5/21/77	17	0	1.6	11.8	11.8	119.2
32	5/21/77	17	45	0.0	11.8	11.8	119.2
32	5/21/77	18	0	2.2	12.3	12.3	119.7
32	5/21/77	18	18	6.4	14.2	14.2	121.7
32	5/29/77			NO DATA	0.0	0.0	121.7
32	5/29/77			NO DATA	6.3	6.3	128.0
32	5/30/77			NO DATA	0.0	0.0	128.0
32	5/30/77			NO DATA	6.6	6.6	134.6
32	6/ 8/77			NO DATA	0.0	0.0	134.6
32	6/ 8/77			NO DATA	5.1	5.1	139.7
32	6/11/77			NO DATA	0.0	0.0	139.7
32	6/11/77			NO DATA	3.8	3.8	143.5
32	6/17/77	13	39	0.0	0.0	0.0	143.5
32	6/17/77	13	41	32.8	1.1	1.1	144.6
32	6/17/77	13	43	41.0	2.5	2.5	146.0
32	6/17/77	13	46	21.9	3.6	3.6	147.1
32	6/17/77	13	50	131.2	12.3	12.3	155.8
32	6/17/77	13	54	41.0	15.0	15.0	158.5
32	6/17/77	13	55	98.4	16.7	16.7	160.2
32	6/17/77	13	57	73.8	19.1	19.1	162.6
32	6/17/77	14	0	27.3	20.5	20.5	164.0
32	6/17/77	14	27	0.6	20.8	20.8	164.3
32	6/17/77	14	30	10.9	21.3	21.3	164.8
32	6/17/77	14	40	0.0	21.3	21.3	164.8
32	6/17/77	14	44	4.1	21.6	21.6	165.1
32	6/23/77	8	40	0.0	0.0	0.0	165.1
32	6/23/77	8	57	4.3	1.2	1.2	166.3
32	6/23/77	9	0	36.6	3.0	3.0	168.1
32	6/23/77	9	1	128.0	5.2	5.2	170.3
32	6/23/77	9	3	27.4	6.1	6.1	171.2
32	6/23/77	9	11	2.3	6.4	6.4	171.5
32	6/23/77	9	18	10.5	7.6	7.6	172.7
32	6/23/77	9	28	5.5	8.5	8.5	173.6
32	6/23/77	9	35	5.2	9.1	9.1	174.2
32	6/24/77			NO DATA	0.0	0.0	174.2
32	6/24/77			NO DATA	1.3	1.3	175.5
32	6/30/77			NO DATA	0.0	0.0	175.5
32	6/30/77			NO DATA	1.3	1.3	176.8

TABLE 81- 8. CONTINUED

GAGE	DATE	HOUR	MIN	PRECIP INTENSITY MM/HR	ACCUMULATED STORM MM	PRECIPITATION DAY MM	PRECIPITATION YEAR MM
32	7/ 3/77	5	7	0.0	0.0	0.0	176.8
32	7/ 3/77	5	8	61.0	1.0	1.0	177.8
32	7/ 3/77	5	10	76.2	3.6	3.6	180.3
32	7/ 3/77	5	12	38.1	4.8	4.8	181.6
32	7/ 3/77	5	15	76.2	8.6	8.6	185.4
32	7/ 3/77	5	16	30.5	9.1	9.1	185.9
32	7/ 3/77	5	22	7.6	9.9	9.9	186.7
32	7/ 3/77	6	2	0.4	10.2	10.2	186.9
32	7/ 3/77	6	4	22.9	10.9	10.9	187.7
32	7/ 3/77	6	9	9.1	11.7	11.7	188.5
32	7/ 3/77	6	15	7.6	12.4	12.4	189.2
32	7/ 3/77	6	18	0.0	12.4	12.4	189.2
32	7/ 3/77	6	26	3.8	13.0	13.0	189.7
32	7/ 3/77	6	40	1.1	13.2	13.2	190.0
32	7/ 6/77	20	37	0.0	0.0	0.0	190.0
32	7/ 6/77	20	41	56.5	3.6	3.6	193.6
32	7/ 6/77	20	43	77.9	6.2	6.2	196.2
32	7/ 6/77	20	44	77.9	7.5	7.5	197.5
32	7/ 6/77	20	46	93.5	10.6	10.6	200.6
32	7/ 6/77	20	50	11.7	11.4	11.4	201.4
32	7/ 6/77	20	51	109.1	13.2	13.2	203.2
32	7/ 6/77	21	3	1.3	13.5	13.5	203.5
32	7/ 6/77	21	4	31.1	14.0	14.0	204.0
32	7/ 6/77	21	10	0.0	14.0	14.0	204.0
32	7/ 6/77	21	13	5.2	14.3	14.3	204.3
32	7/ 6/77	21	19	0.0	14.3	14.3	204.3
32	7/ 6/77	21	23	27.3	16.1	16.1	206.1
32	7/ 6/77	21	26	52.0	18.7	18.7	208.7
32	7/ 6/77	21	30	7.8	19.2	19.2	209.2
32	7/ 6/77	21	31	15.6	19.5	19.5	209.5
32	7/ 6/77	21	33	62.3	21.6	21.6	211.5
32	7/ 6/77	22	1	2.2	22.6	22.6	212.6
32	7/ 6/77	22	10	3.5	23.1	23.1	213.1
32	7/11/77			NO DATA	0.0	0.0	213.1
32	7/11/77			NO DATA	1.3	1.3	214.4
32	7/15/77	19	28	0.0	0.0	0.0	214.4
32	7/15/77	19	36	22.9	3.0	3.0	217.4
32	7/15/77	19	38	60.9	5.1	5.1	219.5
32	7/15/77	19	42	34.3	7.4	7.4	221.7
32	7/15/77	19	44	7.6	7.6	7.6	222.0
32	7/15/77	19	49	30.5	10.2	10.2	224.5
32	7/15/77	19	51	30.5	11.2	11.2	225.5
32	7/15/77	20	0	3.4	11.7	11.7	226.1
32	7/15/77	20	13	2.3	12.2	12.2	226.6
32	7/15/77	20	30	3.6	13.2	13.2	227.6
32	7/15/77	20	49	2.4	14.0	14.0	228.3
32	7/17/77			NO DATA	0.0	0.0	228.3
32	7/17/77			NO DATA	3.8	3.8	232.2
32	7/18/77			NO DATA	0.0	0.0	232.2
32	7/18/77			NO DATA	2.3	2.3	234.4
32	7/21/77	18	22	0.0	0.0	0.0	234.4
32	7/21/77	18	30	24.3	3.2	3.2	237.7
32	7/21/77	18	46	6.5	5.0	5.0	239.4
32	7/21/77	18	51	44.8	8.7	8.7	243.1
32	7/21/77	19	0	11.6	10.5	10.5	244.9
32	7/21/77	19	22	4.8	12.2	12.2	246.6
32	7/24/77			NO DATA	0.0	0.0	246.6
32	7/24/77			NO DATA	3.8	3.8	250.4
32	7/28/77			NO DATA	0.0	0.0	250.4
32	7/28/77			NO DATA	20.3	20.3	270.8
32	7/30/77			NO DATA	0.0	0.0	270.8
32	7/30/77			NO DATA	0.8	0.8	271.5
32	8/ 1/77	18	50	0.0	0.0	0.0	271.5
32	8/ 1/77	18	53	25.8	1.3	1.3	272.8
32	8/ 1/77	18	56	98.2	6.2	6.2	277.7
32	8/ 1/77	18	58	46.5	7.7	7.7	279.3
32	8/ 1/77	19	0	93.0	10.8	10.8	282.4
32	8/ 1/77	19	2	62.0	12.9	12.9	284.4
32	8/ 1/77	19	7	0.0	12.9	12.9	284.4
32	8/ 1/77	19	8	31.0	13.4	13.4	285.0
32	8/ 1/77	19	12	7.7	13.9	13.9	285.5
32	8/ 1/77	19	13	77.5	15.2	15.2	286.8
32	8/ 1/77	19	14	15.5	15.5	15.5	287.0
32	8/ 1/77	19	15	62.0	16.5	16.5	288.1
32	8/ 1/77	19	18	15.5	17.3	17.3	288.8
32	8/ 1/77	19	20	38.7	18.6	18.6	290.1
32	8/ 1/77	19	28	5.8	19.4	19.4	290.9
32	8/ 1/77	19	30	38.7	20.7	20.7	292.2
32	8/ 1/77	19	40	3.1	21.2	21.2	292.7
32	8/ 1/77	19	44	89.1	27.1	27.1	298.6
32	8/ 1/77	20	12	3.3	28.7	28.7	300.2
32	8/ 1/77	20	20	3.9	29.2	29.2	300.7
32	8/ 1/77	20	30	6.2	30.2	30.2	301.7
32	8/ 1/77	21	10	0.4	30.5	30.5	302.0
32	8/ 5/77	11	0	0.0	0.0	0.0	302.0
32	8/ 5/77	11	22	6.4	2.3	2.3	304.3
32	8/ 5/77	11	26	34.9	4.7	4.7	306.7
32	8/ 5/77	11	28	15.5	5.2	5.2	307.2
32	8/ 5/77	11	30	38.8	6.5	6.5	308.5
32	8/ 5/77	11	33	20.7	7.5	7.5	309.5
32	8/ 5/77	11	35	62.1	9.6	9.6	311.6
32	8/ 5/77	11	45	10.9	11.4	11.4	313.4
32	8/ 5/77	12	11	3.6	12.9	12.9	314.9
32	8/ 5/77	12	20	1.7	13.2	13.2	315.2

TABLE B1- 8. CONTINUED

GAGE	DATE	HOUR	MIN	PRECIP INTENSITY MM/HR	ACCUMULATED STORM MM	PRECIPITATION DAY MM	YEAR MM
32	8/ 5/77	12	42	1.4	13.7	13.7	315.7
32	8/ 7/77	23	30	0.0	0.0	0.0	315.7
32	8/ 7/77	23	32	7.8	0.3	0.3	316.0
32	8/ 7/77	23	36	3.9	0.5	0.5	316.2
32	8/ 7/77	23	39	5.2	0.8	0.8	316.5
32	8/ 8/77	0	15	0.4	1.0	0.3	316.8
32	8/ 8/77	0	23	3.9	1.6	0.8	317.3
32	8/ 8/77	0	56	0.9	2.1	1.3	317.8
32	8/ 8/77	0	59	5.2	2.4	1.6	318.1
32	8/ 8/77	1	13	21.3	7.3	6.5	323.0
32	8/ 8/77	1	16	5.2	7.6	6.8	323.3
32	8/ 8/77	1	26	1.6	7.8	7.1	323.5
32	8/ 8/77	1	30	3.9	8.1	7.3	323.8
32	8/ 8/77	2	0	1.0	8.6	7.8	324.3
32	8/ 8/77	2	46	0.0	8.6	7.8	324.3
32	8/ 8/77	2	51	3.1	8.9	8.1	324.6
32	8/ 8/77	3	36	0.0	8.9	8.1	324.6
32	8/ 8/77	3	43	9.0	9.9	9.1	325.6
32	8/ 8/77	3	54	0.0	9.9	9.1	325.6
32	8/ 8/77	3	56	7.8	10.2	9.4	325.9
32	8/ 8/77	4	8	1.3	10.4	9.7	326.2
32	8/ 8/77	4	20	1.3	10.7	9.9	326.4
32	8/ 8/77	4	43	0.7	11.0	10.2	326.7
32	8/ 8/77	4	50	2.2	11.2	10.4	326.9
32	8/ 8/77	4	57	2.2	11.5	10.7	327.2
32	8/ 8/77	5	3	7.8	12.3	11.5	328.0
32	8/ 8/77	5	4	47.0	13.1	12.3	328.8
32	8/ 8/77	5	9	6.3	13.6	12.8	329.3
32	8/ 8/77	5	10	31.3	14.1	13.3	329.8
32	8/ 8/77	5	26	6.9	15.9	15.1	331.6
32	8/ 8/77	5	27	31.3	16.5	15.7	332.2
32	8/ 8/77	5	43	2.0	17.0	16.2	332.7
32	8/ 8/77	6	17	1.4	17.8	17.0	333.5
32	8/ 8/77	6	37	1.6	18.3	17.5	334.0
32	8/ 8/77	6	45	2.0	18.5	17.8	334.3
32	8/ 9/77	5	15	0.0	0.0	0.0	334.3
32	8/ 9/77	5	21	7.4	0.7	0.7	335.0
32	8/ 9/77	6	20	0.8	1.5	1.5	335.7
32	8/ 9/77	7	0	0.7	2.0	2.0	336.2
32	8/ 9/77	7	30	0.0	2.0	2.0	336.2
32	8/ 9/77	8	0	7.4	5.7	5.7	339.9
32	8/ 9/77	8	20	6.7	7.9	7.9	342.2
32	8/ 9/77	8	40	4.5	9.4	9.4	343.7
32	8/ 9/77	9	10	1.0	9.9	9.9	344.2
32	8/13/77			NO DATA	0.0	0.0	344.2
32	8/13/77			NO DATA	5.1	5.1	349.2
32	8/15/77			NO DATA	0.0	0.0	349.2
32	8/15/77			NO DATA	36.6	36.6	385.8
32	8/16/77			NO DATA	0.0	0.0	385.8
32	8/16/77			NO DATA	3.0	3.0	388.9
32	8/19/77			NO DATA	0.0	0.0	388.9
32	8/19/77			NO DATA	6.1	6.1	395.0
32	8/21/77			NO DATA	0.0	0.0	395.0
32	8/21/77			NO DATA	3.0	3.0	398.0
32	8/25/77			NO DATA	0.0	0.0	398.0
32	8/25/77			NO DATA	13.2	13.2	411.2
32	8/26/77			NO DATA	0.0	0.0	411.2
32	8/26/77			NO DATA	3.0	3.0	414.3
32	8/27/77			NO DATA	0.0	0.0	414.3
32	8/27/77			NO DATA	12.2	12.2	426.5
32	8/28/77			NO DATA	0.0	0.0	426.5
32	8/28/77			NO DATA	18.3	18.3	444.7
32	8/31/77			NO DATA	0.0	0.0	444.7
32	8/31/77			NO DATA	22.4	22.4	467.1
32	9/ 3/77			NO DATA	0.0	0.0	467.1
32	9/ 3/77			NO DATA	6.1	6.1	473.2
32	9/ 7/77			NO DATA	0.0	0.0	473.2
32	9/ 7/77			NO DATA	1.0	1.0	474.2
32	9/ 9/77			NO DATA	0.0	0.0	474.2
32	9/ 9/77			NO DATA	3.0	3.0	477.3
32	9/12/77			NO DATA	0.0	0.0	477.3
32	9/12/77			NO DATA	3.0	3.0	480.3
32	9/15/77			NO DATA	0.0	0.0	480.3
32	9/15/77			NO DATA	4.1	4.1	484.4
32	9/17/77			NO DATA	0.0	0.0	484.4
32	9/17/77			NO DATA	55.9	55.9	540.2
32	9/18/77			NO DATA	0.0	0.0	540.2
32	9/18/77			NO DATA	12.2	12.2	552.4
32	9/23/77	7	50	0.0	0.0	0.0	552.4
32	9/23/77	7	57	2.1	0.2	0.2	552.7
32	9/23/77	8	45	1.2	1.2	1.2	553.7
32	9/23/77	8	54	1.7	1.5	1.5	553.9
32	9/23/77	9	35	1.1	2.2	2.2	554.7
32	9/23/77	9	41	2.5	2.5	2.5	554.9
32	9/23/77	9	45	3.7	2.7	2.7	555.2

TABLE B1- 8. CONTINUED

GAGE	DATE	HOUR	MIN	PRECIP INTENSITY MM/HR	ACCUMULATED STORM MM	PRECIPITATION DAY MM	PRECIPITATION YEAR MM
32	9/23/77	9	57	2.5	3.2	3.2	555.7
32	9/23/77	10	6	5.0	4.0	4.0	556.4
32	9/23/77	10	35	2.6	5.2	5.2	557.7
32	9/23/77	11	0	1.2	5.7	5.7	558.2
32	9/23/77	11	15	2.0	6.2	6.2	558.7
32	9/23/77	11	32	2.6	7.0	7.0	559.4
32	9/23/77	12	0	0.5	7.2	7.2	559.7
32	9/23/77	15	25	0.0	7.2	7.2	559.7
32	9/23/77	15	27	15.0	7.7	7.7	560.2
32	9/23/77	15	29	7.5	8.0	8.0	560.4
32	9/23/77	15	30	15.0	8.2	8.2	560.7
32	9/23/77	18	0	0.2	8.7	8.7	561.2
32	9/23/77	19	10	0.6	9.5	9.5	561.9
32	9/23/77	21	15	0.1	9.7	9.7	562.2
32	9/23/77	21	17	15.0	10.2	10.2	562.7
32	9/23/77	21	22	0.0	10.2	10.2	562.7
32	9/23/77	21	24	37.4	11.5	11.5	563.9
32	9/23/77	21	26	7.5	11.7	11.7	564.1
32	9/23/77	21	49	0.7	12.0	12.0	564.4
32	9/23/77	21	52	15.0	12.7	12.7	565.1
32	9/23/77	21	56	11.2	13.5	13.5	565.9
32	9/30/77	1	0	0.0	0.0	0.0	565.9
32	9/30/77	1	18	1.7	0.5	0.5	566.4
32	9/30/77	1	20	7.5	0.8	0.8	566.6
32	9/30/77	1	26	2.5	1.0	1.0	566.9
32	9/30/77	1	28	30.1	2.0	2.0	567.9
32	9/30/77	1	32	11.3	2.8	2.8	568.7
32	9/30/77	1	43	5.5	3.8	3.8	569.7
32	9/30/77	1	44	45.2	4.5	4.5	570.4
32	9/30/77	1	47	20.1	5.5	5.5	571.4
32	9/30/77	1	50	15.1	6.3	6.3	572.2
32	9/30/77	1	53	5.0	6.5	6.5	572.4
32	9/30/77	1	55	30.1	7.5	7.5	573.4
32	9/30/77	2	1	10.0	8.5	8.5	574.4
32	9/30/77	2	4	10.0	9.0	9.0	574.9
32	9/30/77	2	6	7.5	9.3	9.3	575.2
32	9/30/77	2	12	7.5	10.0	10.0	575.9
32	9/30/77	2	24	6.3	11.3	11.3	577.2
32	9/30/77	2	34	1.5	11.5	11.5	577.4
32	9/30/77	2	40	5.0	12.0	12.0	577.9
32	9/30/77	16	58	0.0	12.0	12.0	577.9
32	9/30/77	17	0	30.1	13.1	13.1	578.9
32	9/30/77	17	30	1.0	13.6	13.6	579.4
32	9/30/77	17	40	4.5	14.3	14.3	580.2
32	9/30/77	17	50	4.5	15.1	15.1	581.0
32	9/30/77	18	25	0.9	15.6	15.6	581.5
32	9/30/77	19	27	0.5	16.1	16.1	582.0
32	9/30/77	19	32	3.0	16.3	16.3	582.2
32	9/30/77	19	36	37.7	18.8	18.8	584.7
32	9/30/77	19	40	7.5	19.3	19.3	585.2
32	9/30/77	19	45	12.0	20.3	20.3	586.2
32	9/30/77	20	5	3.0	21.3	21.3	587.2
32	10/ 7/77	7	0	0.0	0.0	0.0	587.2
32	10/ 7/77	7	20	0.8	0.3	0.3	587.5
32	10/ 7/77	8	0	0.8	0.8	0.8	588.0
32	10/ 7/77	9	3	0.8	1.6	1.6	588.8
32	10/ 7/77	9	17	1.2	1.9	1.9	589.1
32	10/ 7/77	9	33	1.0	2.2	2.2	589.4
32	10/ 7/77	9	48	2.2	2.7	2.7	589.9
32	10/ 7/77	10	3	1.1	3.0	3.0	590.2
32	10/ 7/77	10	10	2.3	3.2	3.2	590.5
32	10/ 7/77	10	20	4.8	4.0	4.0	591.3
32	10/ 7/77	10	35	3.2	4.8	4.8	592.1
32	10/ 7/77	11	0	2.6	5.9	5.9	593.1
32	10/ 7/77	11	14	2.3	6.5	6.5	593.7
32	10/ 7/77	11	47	1.0	7.0	7.0	594.2
32	10/ 7/77	12	12	3.2	8.3	8.3	595.6
32	10/ 7/77	12	27	2.2	8.9	8.9	596.1
32	10/ 7/77	12	33	2.7	9.1	9.1	596.4
32	10/ 7/77	12	43	4.8	10.0	10.0	597.2
32	10/ 7/77	12	56	2.5	10.5	10.5	597.7
32	10/ 7/77	12	59	10.8	11.0	11.0	598.3
32	10/ 7/77	13	15	1.0	11.3	11.3	598.5
32	10/ 7/77	13	28	3.7	12.1	12.1	599.3
32	10/ 7/77	13	50	1.5	12.6	12.6	599.9
32	10/ 7/77	14	6	1.0	12.9	12.9	600.1
32	10/ 7/77	14	35	1.7	13.7	13.7	600.9
32	10/ 7/77	14	44	3.6	14.3	14.3	601.5
32	10/ 7/77	14	50	5.4	14.8	14.8	602.0
32	10/ 7/77	14	57	4.6	15.3	15.3	602.6
32	10/ 7/77	15	4	2.3	15.6	15.6	602.8
32	10/ 7/77	15	14	3.2	16.1	16.1	603.4
32	10/ 7/77	15	28	4.6	17.2	17.2	604.4
32	10/ 7/77	15	43	3.2	18.0	18.0	605.2
32	10/ 7/77	15	47	12.1	18.8	18.8	606.1
32	10/ 7/77	15	53	2.7	19.1	19.1	606.3
32	10/ 7/77	16	11	9.0	21.8	21.8	609.0
32	10/ 7/77	18	0	0.6	22.9	22.9	610.1
32	10/10/77	14	30	0.0	0.0	0.0	610.1
32	10/10/77	14	43	2.7	0.6	0.6	610.7
32	10/10/77	14	51	2.2	0.9	0.9	611.0
32	10/10/77	14	58	2.5	1.2	1.2	611.3
32	10/10/77	15	7	4.0	1.8	1.8	611.9
32	10/10/77	15	13	3.0	2.1	2.1	612.2
32	10/10/77	15	35	8.1	5.0	5.0	615.1
32	10/10/77	15	40	3.6	5.3	5.3	615.4
32	10/21/77	23	0	0.0	0.0	0.0	615.4
32	10/21/77	23	20	3.2	1.1	1.1	616.5
32	10/21/77	23	40	3.2	2.1	2.1	617.5
32	10/21/77	23	55	4.2	3.2	3.2	618.6

TABLE B1- 8. CONTINUED

GAGE	DATE	HOUR	MIN	PRECIP INTENSITY MM/HR	ACCUMULATED PRECIPITATION STORM MM	DAY MM	YEAR MM
32	10/22/77	0	9	4.5	4.2	1.1	619.6
32	10/22/77	0	20	4.3	5.0	1.9	620.4
32	10/22/77	0	30	3.2	5.6	2.4	621.0
32	10/22/77	0	40	4.8	6.3	3.2	621.8
32	10/22/77			NO DATA	0.0	3.2	621.8
32	10/22/77			NO DATA	3.8	7.0	625.6
32	10/23/77	1	20	0.0	0.0	0.0	625.6
32	10/23/77	1	25	3.4	0.3	0.3	625.9
32	10/23/77	1	36	1.5	0.6	0.6	626.1
32	10/23/77	1	42	5.6	1.1	1.1	626.7
32	10/23/77	1	45	0.0	1.1	1.1	626.7
32	10/23/77	2	3	3.8	2.3	2.3	627.8
32	10/23/77	2	6	5.6	2.5	2.5	628.1
32	10/23/77	2	14	2.1	2.8	2.8	628.4
32	10/23/77	2	35	0.8	3.1	3.1	628.7
32	10/23/77	2	40	3.4	3.4	3.4	629.0
32	10/23/77	2	45	3.4	3.7	3.7	629.3
32	10/23/77	2	54	1.9	3.9	3.9	629.5
32	10/23/77	5	46	0.0	3.9	3.9	629.5
32	10/23/77	5	53	4.8	4.5	4.5	630.1
32	10/23/77	5	57	4.2	4.8	4.8	630.4
32	10/23/77	6	5	4.2	5.4	5.4	630.9
32	10/23/77	6	9	0.0	5.4	5.4	630.9
32	10/23/77	6	21	2.8	5.9	5.9	631.5
32	10/23/77	6	26	10.2	6.8	6.8	632.3
32	10/23/77	6	29	5.6	7.0	7.0	632.6
32	10/23/77	6	35	5.6	7.6	7.6	633.2
32	10/23/77	6	38	5.6	7.9	7.9	633.5
32	10/23/77	6	44	2.8	8.2	8.2	633.7
32	10/23/77	6	50	2.8	8.5	8.5	634.0
32	10/23/77	7	50	0.0	8.5	8.5	634.0
32	10/23/77	7	55	6.8	9.0	9.0	634.6
32	10/23/77	8	1	5.6	9.6	9.6	635.2
32	10/23/77	8	4	0.0	9.6	9.6	635.2
32	10/23/77	8	14	3.4	10.2	10.2	635.7
32	10/23/77	8	17	5.6	10.4	10.4	636.0
32	10/23/77	8	23	2.8	10.7	10.7	636.3
32	10/23/77	8	34	0.0	10.7	10.7	636.3
32	10/23/77	8	45	3.1	11.3	11.3	636.8
32	10/23/77	8	46	33.8	11.8	11.8	637.4
32	10/23/77	8	54	10.6	13.3	13.3	638.8
32	10/23/77	9	6	4.2	14.1	14.1	639.7
32	10/23/77	9	13	9.7	15.2	15.2	640.8
32	10/23/77	9	21	2.1	15.5	15.5	641.1
32	10/23/77	9	50	1.2	16.1	16.1	641.6
32	10/23/77	10	0	1.7	16.4	16.4	641.9
32	10/23/77	11	8	0.0	16.4	16.4	641.9
32	10/23/77	12	15	0.5	16.9	16.9	642.5
32	10/23/77	12	25	1.7	17.2	17.2	642.8
32	10/23/77	12	57	0.5	17.5	17.5	643.0
32	10/23/77	13	6	1.9	17.8	17.8	643.3
32	10/23/77	13	14	2.1	18.0	18.0	643.6
32	10/23/77	13	25	1.5	18.3	18.3	643.9
32	10/23/77	13	42	3.0	19.2	19.2	644.7
32	10/23/77	13	53	3.1	19.7	19.7	645.3
32	10/23/77	14	3	1.7	20.0	20.0	645.6
32	10/23/77	14	12	1.9	20.3	20.3	645.9
32	10/23/77	14	40	1.8	21.1	21.1	646.7
32	10/23/77	15	7	1.3	21.7	21.7	647.3
32	10/23/77	15	9	16.9	22.3	22.3	647.8
32	10/23/77	15	13	4.2	22.6	22.6	648.1
32	10/23/77	15	14	16.9	22.8	22.8	648.4
32	10/23/77	15	22	6.3	23.7	23.7	649.3
32	10/23/77	15	25	5.6	24.0	24.0	649.5
32	10/23/77	15	31	2.8	24.2	24.2	649.8
32	10/23/77	15	37	5.6	24.8	24.8	650.4
32	10/23/77	15	52	2.3	25.4	25.4	650.9
32	10/23/77	16	20	1.8	26.2	26.2	651.8
32	10/23/77	16	46	0.7	26.5	26.5	652.1
32	10/23/77	17	23	0.5	26.8	26.8	652.4
32	10/23/77	17	26	11.3	27.4	27.4	652.9
32	10/23/77	17	33	9.7	28.5	28.5	654.0
32	10/23/77	17	34	16.9	28.8	28.8	654.3
32	10/23/77	17	44	3.4	29.3	29.3	654.9
32	10/23/77	18	0	2.1	29.9	29.9	655.5
32	10/23/77	18	43	1.2	30.7	30.7	656.3
32	10/24/77	4	0	0.0	0.0	0.0	656.3
32	10/24/77	4	14	2.0	0.5	0.5	656.8
32	10/24/77	4	25	1.3	0.7	0.7	657.0
32	10/24/77	4	33	7.1	1.7	1.7	658.0
32	10/24/77	5	12	0.4	1.9	1.9	658.2
32	10/24/77	5	13	28.6	2.4	2.4	658.7
32	10/24/77	5	17	10.7	3.1	3.1	659.4
32	10/24/77	5	19	7.1	3.3	3.3	659.6
32	10/24/77	5	22	9.5	3.8	3.8	660.1
32	10/24/77	5	28	4.8	4.3	4.3	660.6
32	10/24/77	5	32	3.6	4.5	4.5	660.8
32	10/24/77	5	37	2.9	4.8	4.8	661.1
32	10/24/77	5	47	1.4	5.0	5.0	661.3
32	10/24/77	6	16	1.0	5.5	5.5	661.8
32	10/24/77	6	25	3.2	6.0	6.0	662.2
32	10/24/77	6	26	14.3	6.2	6.2	662.5
32	10/24/77	7	0	0.8	6.7	6.7	663.0
32	10/24/77	7	2	7.1	6.9	6.9	663.2
32	10/24/77	7	9	2.0	7.1	7.1	663.4
32	10/24/77	7	30	1.4	7.6	7.6	663.9
32	10/30/77	22	0	0.0	0.0	0.0	663.9
32	10/31/77	1	44	0.3	1.2	1.2	665.1
32	10/31/77	2	8	0.7	1.5	1.5	665.4
32	10/31/77	2	20	3.0	2.1	2.1	666.0

TABLE B1- 8. CONCLUDED

GAGE	DATE	HOUR	MIN	PRECIP INTENSITY MM/HR	ACCUMULATED STORM MM	PRECIPITATION DAY MM	PRECIPITATION YEAR MM
32	10/31/77	2	36	3.4	3.0	3.0	666.9
32	10/31/77	2	48	3.0	3.6	3.6	667.5
32	10/31/77	3	10	1.6	4.2	4.2	668.1
32	10/31/77	3	49	2.3	5.7	5.7	669.6
32	10/31/77	3	52	11.9	6.3	6.3	670.2
32	10/31/77	3	53	71.6	7.5	7.5	671.4
32	10/31/77	3	56	23.9	8.7	8.7	672.6
32	10/31/77	3	58	8.9	9.0	9.0	672.9
32	10/31/77	3	59	35.8	9.5	9.5	673.5
32	10/31/77	4	2	6.0	9.8	9.8	673.8
32	10/31/77	4	4	17.9	10.4	10.4	674.4
32	10/31/77	4	7	35.8	12.2	12.2	676.1
32	10/31/77	4	9	9.0	12.5	12.5	676.4
32	10/31/77	4	12	11.9	13.1	13.1	677.0
32	10/31/77	4	15	6.0	13.4	13.4	677.3
32	10/31/77	4	20	25.1	15.5	15.5	679.4
32	10/31/77	4	35	2.4	16.1	16.1	680.0
32	10/31/77	4	56	4.3	17.6	17.6	681.5
32	10/31/77	5	4	2.2	17.9	17.9	681.8
32	10/31/77	5	30	2.1	18.8	18.8	682.7
32	11/ 1/77			NO DATA	0.0	0.0	682.7
32	11/ 1/77			NO DATA	1.0	1.0	683.7
32	11/ 3/77			NO DATA	0.0	0.0	683.7
32	11/ 3/77			NO DATA	2.0	2.0	685.8
32	11/ 9/77			NO DATA	0.0	0.0	685.8
32	11/ 9/77			NO DATA	0.5	0.5	686.3
32	11/20/77			NO DATA	0.0	0.0	686.3
32	11/20/77			NO DATA	7.6	7.6	693.9

GAGE	DATE	HOUR	MIN	PRECIP INTENSITY MM/HR	ACCUMULATED STORM MM	PRECIPITATION DAY MM	PRECIPITATION YEAR MM

TABLE 81- 9. FOUR MILE CREEK WATERSHED PRECIPITATION DATA FOR 1977 GAGE 33

GAGE	DATE	HOUR	MIN	PRECIP INTENSITY MM/HR	ACCUMULATED STORM MM	PRECIPITATION DAY MM	YEAR MM
33	4/ 1/77	15	10	0.0	0.0	0.0	0.0
33	4/ 1/77	15	20	3.0	0.5	0.5	0.5
33	4/ 1/77	16	5	0.3	0.7	0.7	0.7
33	4/ 1/77	16	10	3.0	1.0	1.0	1.0
33	4/ 1/77	16	15	3.0	1.2	1.2	1.2
33	4/ 1/77	17	24	0.0	1.2	1.2	1.2
33	4/ 1/77	17	26	7.5	1.5	1.5	1.5
33	4/ 1/77	18	11	0.3	1.7	1.7	1.7
33	4/ 1/77	18	16	3.0	2.0	2.0	2.0
33	4/ 1/77	18	51	0.9	2.5	2.5	2.5
33	4/ 1/77	18	57	2.5	2.7	2.7	2.7
33	4/ 1/77	19	35	1.6	3.7	3.7	3.7
33	4/ 1/77	19	44	3.3	4.2	4.2	4.2
33	4/ 1/77	19	55	6.8	5.5	5.5	5.5
33	4/ 1/77	20	0	9.0	6.2	6.2	6.2
33	4/ 1/77	20	4	3.7	6.5	6.5	6.5
33	4/ 1/77	20	18	1.1	6.7	6.7	6.7
33	4/ 1/77	20	35	5.3	8.2	8.2	8.2
33	4/ 1/77	20	39	3.7	8.5	8.5	8.5
33	4/ 1/77	20	46	2.1	8.7	8.7	8.7
33	4/ 1/77	20	50	7.5	9.2	9.2	9.2
33	4/ 1/77	20	54	11.2	10.0	10.0	10.0
33	4/ 2/77	0	10	0.0	10.0	0.0	10.0
33	4/ 2/77	1	12	0.5	10.5	0.5	10.5
33	4/ 2/77	1	20	3.7	11.0	1.0	11.0
33	4/ 2/77	1	27	2.1	11.2	1.2	11.2
33	4/ 2/77	1	33	5.0	11.7	1.7	11.7
33	4/ 2/77	1	50	1.8	12.2	2.2	12.2
33	4/ 2/77	2	0	6.0	13.2	3.2	13.2
33	4/ 2/77	2	5	6.0	13.7	3.7	13.7
33	4/ 2/77	2	30	0.6	14.0	4.0	14.0
33	4/ 2/77			NO DATA	0.0	4.0	14.0
33	4/ 2/77			NO DATA	3.8	7.8	17.8
33	4/ 3/77	19	50	0.0	0.0	0.0	17.8
33	4/ 3/77	20	10	1.5	0.5	0.5	18.3
33	4/ 3/77	21	50	1.2	2.5	2.5	20.3
33	4/ 3/77	22	20	1.5	3.3	3.3	21.1
33	4/ 3/77	22	48	2.2	4.3	4.3	22.1
33	4/ 4/77	1	50	0.3	5.1	0.8	22.9
33	4/ 4/77	2	27	2.9	6.9	2.5	24.6
33	4/ 4/77	3	36	0.7	7.6	3.3	25.4
33	4/ 4/77	7	0	0.4	8.9	4.6	26.7
33	4/ 4/77			NO DATA	0.0	4.6	26.7
33	4/ 4/77			NO DATA	2.5	7.1	29.2
33	4/ 5/77			NO DATA	0.0	0.0	29.2
33	4/ 5/77			NO DATA	1.3	1.3	30.5
33	4/14/77			NO DATA	0.0	0.0	30.5
33	4/14/77			NO DATA	1.3	1.3	31.7
33	4/17/77			NO DATA	0.0	0.0	31.7
33	4/17/77			NO DATA	1.0	1.0	32.8
30	4/19/77	16	56	0.0	0.0	0.0	32.8
30	4/19/77	16	57	81.3	1.4	1.4	34.1
30	4/19/77	16	59	24.4	2.2	2.2	34.9
30	4/19/77	17	1	97.6	5.4	5.4	38.2
30	4/19/77	17	3	24.4	6.2	6.2	39.0
30	4/19/77	17	4	81.3	7.6	7.6	40.4
30	4/19/77	17	5	81.4	8.9	8.9	41.7
30	4/19/77	17	6	162.7	11.7	11.7	44.4
30	4/19/77	17	7	81.4	13.0	13.0	45.8
30	4/19/77	17	8	130.1	15.2	15.2	48.0
30	4/19/77	17	12	20.3	16.5	16.5	49.3
30	4/19/77	17	13	65.1	17.6	17.6	50.4
30	4/19/77	17	20	13.9	19.3	19.3	52.0
30	4/19/77	17	24	8.1	19.8	19.8	52.6
30	4/19/77	18	45	0.2	20.1	20.1	52.8
33	4/20/77			NO DATA	0.0	0.0	52.8
33	4/20/77			NO DATA	13.0	13.0	65.8
33	4/28/77	0	20	0.0	0.0	0.0	65.8
33	4/28/77	0	25	6.1	0.5	0.5	66.3
33	4/28/77	0	27	30.5	1.5	1.5	67.3
33	4/28/77	0	50	0.7	1.8	1.8	67.6
33	4/28/77	0	57	2.2	2.0	2.0	67.8
33	4/28/77	1	4	2.2	2.3	2.3	68.1
33	4/28/77	1	10	2.5	2.5	2.5	68.3
33	4/28/77	1	20	1.5	2.8	2.8	68.6
33	4/28/77	1	35	3.0	3.6	3.6	69.3
33	4/28/77	1	42	4.4	4.1	4.1	69.8
33	4/28/77	1	48	5.1	4.6	4.6	70.4
33	4/28/77	1	53	3.0	4.8	4.8	70.6
33	4/28/77	2	46	0.6	5.3	5.3	71.1
33	4/28/77	2	50	3.8	5.6	5.6	71.4
33	4/28/77	4	45	0.5	6.6	6.6	72.4
33	5/ 3/77	20	20	0.0	0.0	0.0	72.4
33	5/ 3/77	20	46	1.9	0.8	0.8	73.2
33	5/ 3/77	21	48	0.3	1.1	1.1	73.5
33	5/ 4/77	7	46	0.0	1.1	0.0	73.5
33	5/ 4/77	7	50	12.3	1.9	0.8	74.3
33	5/ 4/77	8	11	0.8	2.2	1.1	74.6
33	5/ 4/77	8	13	16.4	2.7	1.6	75.1
33	5/ 4/77	8	46	1.0	3.3	2.2	75.7
33	5/ 4/77	8	48	65.8	5.5	4.4	77.9
33	5/ 4/77	8	52	20.6	6.9	5.8	79.2
33	5/ 4/77	16	0	0.1	7.4	6.3	79.8
33	5/ 4/77	16	30	0.5	7.7	6.6	80.1

TABLE 81- 9. CONTINUED

GAGE	DATE	HOUR	MIN	PRECIP INTENSITY MM/HR	ACCUMULATED STORM MM	PRECIPITATION DAY MM	PRECIPITATION YEAR MM
33	5/ 4/77	16	46	1.0	8.0	6.9	80.3
33	5/ 4/77	16	49	16.4	8.8	7.7	81.2
33	5/ 4/77	17	30	1.6	9.9	8.8	82.3
33	5/ 4/77	17	40	3.3	10.4	9.3	82.8
33	5/ 4/77	17	54	1.2	10.7	9.6	83.1
33	5/ 4/77	17	58	12.3	11.5	10.4	83.9
33	5/ 4/77	22	12	0.0	11.5	10.4	83.9
33	5/ 4/77	22	15	54.8	14.3	13.2	86.6
33	5/ 4/77	22	40	3.9	15.9	14.8	88.3
33	5/ 4/77	22	50	4.9	16.7	15.6	89.1
33	5/ 4/77	23	6	2.1	17.3	16.2	89.7
33	5/15/77			NO DATA	0.0	0.0	89.7
33	5/15/77			NO DATA	1.3	1.3	90.9
33	5/20/77	14	55	0.0	0.0	0.0	90.9
33	5/20/77	15	0	9.6	0.8	0.8	91.7
33	5/20/77	16	29	0.7	1.9	1.9	92.8
33	5/21/77	12	59	0.0	1.9	0.0	92.8
33	5/21/77	13	3	4.0	2.1	0.3	93.1
33	5/21/77	13	7	31.9	4.3	2.4	95.2
33	5/21/77	13	17	3.2	4.8	2.9	95.7
33	5/21/77	16	48	0.1	5.1	3.2	96.0
33	5/21/77	16	52	12.0	5.9	4.0	96.8
33	5/21/77	16	55	53.2	8.5	6.7	99.4
33	5/21/77	17	40	0.4	8.8	6.9	99.7
33	5/21/77	18	3	2.1	9.6	7.7	100.5
33	5/21/77	18	10	6.8	10.4	8.5	101.3
33	5/21/77	18	30	2.4	11.2	9.3	102.1
33	5/29/77			NO DATA	0.0	0.0	102.1
33	5/29/77			NO DATA	3.3	3.3	105.4
33	5/30/77			NO DATA	0.0	0.0	105.4
33	5/30/77			NO DATA	3.8	3.8	109.2
33	6/ 8/77			NO DATA	0.0	0.0	109.2
33	6/ 8/77			NO DATA	5.1	5.1	114.3
33	6/11/77	2	20	0.0	0.0	0.0	114.3
33	6/11/77	2	24	7.6	0.5	0.5	114.8
33	6/11/77	2	33	0.0	0.5	0.5	114.8
33	6/11/77	2	35	99.1	3.8	3.8	118.1
33	6/11/77	2	45	3.0	4.3	4.3	118.6
33	6/11/77	2	46	61.0	5.3	5.3	119.6
33	6/11/77	2	50	11.4	6.1	6.1	120.4
33	6/11/77	3	40	0.3	6.3	6.3	120.6
33	6/17/77	13	45	0.0	0.0	0.0	120.6
33	6/17/77	13	48	61.2	3.1	3.1	123.7
33	6/17/77	13	51	44.5	5.3	5.3	125.9
33	6/17/77	13	54	27.8	6.7	6.7	127.3
33	6/17/77	13	58	104.3	13.6	13.6	134.3
33	6/17/77	14	4	38.9	17.5	17.5	138.2
33	6/17/77	14	7	8.6	17.8	17.8	138.4
33	6/17/77	14	8	33.4	18.3	18.3	139.0
33	6/17/77	14	33	0.7	18.6	18.6	139.3
33	6/17/77	14	34	16.7	18.9	18.9	139.6
33	6/17/77	14	45	3.0	19.5	19.5	140.1
33	6/17/77	14	46	50.0	20.3	20.3	140.9
33	6/17/77	14	52	2.8	20.6	20.6	141.2
33	6/23/77	8	42	0.0	0.0	0.0	141.2
33	6/23/77	8	47	6.7	0.6	0.6	141.8
33	6/23/77	8	50	16.7	1.4	1.4	142.6
33	6/23/77	8	56	2.8	1.7	1.7	142.9
33	6/23/77	9	0	8.4	2.2	2.2	143.5
33	6/23/77	9	4	37.6	4.7	4.7	146.0
33	6/23/77	9	25	6.4	7.0	7.0	148.2
33	6/23/77	9	33	4.2	7.5	7.5	148.7
33	6/23/77	9	40	2.4	7.8	7.8	149.0
33	6/23/77	10	42	0.3	8.1	8.1	149.3
33	6/23/77	11	0	1.9	8.6	8.6	149.9
33	6/24/77			NO DATA	0.0	0.0	149.9
33	6/24/77			NO DATA	1.3	1.3	151.1
33	6/30/77			NO DATA	0.0	0.0	151.1
33	6/30/77			NO DATA	1.0	1.0	152.1
33	7/ 3/77	5	8	0.0	0.0	0.0	152.1
33	7/ 3/77	5	10	22.9	0.8	0.8	152.9
33	7/ 3/77	5	15	79.2	7.4	7.4	159.5
33	7/ 3/77	5	18	25.4	8.6	8.6	160.8
33	7/ 3/77	5	19	30.5	9.1	9.1	161.3
33	7/ 3/77	5	24	9.1	9.9	9.9	162.0
33	7/ 3/77	6	3	0.8	10.4	10.4	162.6
33	7/ 3/77	6	5	22.9	11.2	11.2	163.3
33	7/ 3/77	6	30	3.0	12.4	12.4	164.6
33	7/ 6/77	20	37	0.0	0.0	0.0	164.6
33	7/ 6/77	20	46	79.3	11.9	11.9	176.5
33	7/ 6/77	20	52	47.6	16.6	16.6	181.2
33	7/ 6/77	21	4	2.6	17.2	17.2	181.8
33	7/ 6/77	21	22	4.4	18.5	18.5	183.1
33	7/ 6/77	21	27	47.6	22.5	22.5	187.1
33	7/ 6/77	21	33	13.2	23.8	23.8	188.4
33	7/ 6/77	21	38	12.7	24.8	24.8	189.4
33	7/ 6/77	22	20	1.9	26.2	26.2	190.8
33	7/11/77			NO DATA	0.0	0.0	190.8
33	7/11/77			NO DATA	2.0	2.0	192.8
33	7/15/77	19	25	0.0	0.0	0.0	192.8

TABLE B1- 9. CONTINUED

GAGE	DATE	HOUR	MIN	PRECIP INTENSITY MM/HR	ACCUMULATED STORM MM	PRECIPITATION DAY MM	PRECIPITATION YEAR MM
33	7/15/77	19	40	4.0	1.0	1.0	193.8
33	7/15/77	19	44	77.9	6.2	6.2	199.0
33	7/15/77	19	52	46.4	12.4	12.4	205.2
33	7/15/77	19	55	39.6	14.3	14.3	207.1
33	7/15/77	20	1	19.8	16.3	16.3	209.1
33	7/15/77	20	10	3.3	16.8	16.8	209.6
33	7/15/77	20	15	5.9	17.3	17.3	210.1
33	7/15/77	20	21	4.9	17.8	17.8	210.6
33	7/15/77	20	35	5.3	19.0	19.0	211.8
33	7/17/77			NO DATA	0.0	0.0	211.8
33	7/17/77			NO DATA	3.8	3.8	215.6
33	7/18/77	3	20	0.0	0.0	0.0	215.6
33	7/18/77	3	47	1.2	0.6	0.6	216.2
33	7/18/77	3	50	11.2	1.1	1.1	216.8
33	7/18/77	3	56	2.8	1.4	1.4	217.0
33	7/18/77	4	47	0.3	1.7	1.7	217.3
33	7/18/77	4	49	16.8	2.2	2.2	217.9
33	7/18/77	7	0	0.3	2.8	2.8	218.4
33	7/18/77	9	55	0.0	2.8	2.8	218.4
33	7/18/77	9	58	56.0	5.6	5.6	221.2
33	7/18/77	10	2	29.4	7.6	7.6	223.2
33	7/18/77	10	57	0.6	8.1	8.1	223.8
33	7/18/77	11	2	3.4	8.4	8.4	224.0
33	7/18/77	11	10	2.1	8.7	8.7	224.3
33	7/18/77	11	13	5.6	9.0	9.0	224.6
33	7/18/77	11	17	21.0	10.4	10.4	226.0
33	7/18/77	11	20	5.6	10.6	10.6	226.3
33	7/18/77	12	0	0.4	10.9	10.9	226.6
33	7/21/77	6	37	0.0	0.0	0.0	226.6
33	7/21/77	6	42	10.6	0.9	0.9	227.4
33	7/21/77	7	6	2.9	2.1	2.1	228.6
33	7/21/77	7	16	10.6	3.8	3.8	230.4
33	7/21/77	7	51	4.0	6.2	6.2	232.8
33	7/21/77	8	0	2.0	6.5	6.5	233.0
33	7/21/77	8	15	1.2	6.8	6.8	233.3
33	7/21/77	9	0	0.8	7.4	7.4	233.9
33	7/24/77			NO DATA	0.0	0.0	233.9
33	7/24/77			NO DATA	5.1	5.1	239.0
33	7/28/77	16	36	0.0	0.0	0.0	239.0
33	7/28/77	16	40	113.4	7.6	7.6	246.6
33	7/28/77	16	44	133.7	16.5	16.5	255.5
33	7/28/77	16	48	12.2	17.3	17.3	256.3
33	7/28/77	16	56	4.1	17.8	17.8	256.8
33	7/28/77	16	57	32.4	18.4	18.4	257.4
33	7/28/77	16	59	8.1	18.6	18.6	257.6
33	7/28/77	17	34	0.5	18.9	18.9	257.9
33	7/28/77	17	35	32.4	19.4	19.4	258.5
33	7/28/77	17	42	0.0	19.4	19.4	258.5
33	7/28/77	17	46	40.5	22.1	22.1	261.2
33	7/28/77	17	49	75.6	25.9	25.9	264.9
33	7/28/77	17	58	3.6	26.5	26.5	265.5
33	7/28/77	18	0	32.4	27.5	27.5	266.6
33	7/28/77	18	7	2.3	27.8	27.8	266.8
33	7/28/77	18	9	16.2	28.4	28.4	267.4
33	7/28/77	18	13	8.1	28.9	28.9	267.9
33	7/28/77	18	18	6.5	29.4	29.4	268.4
33	7/28/77	19	5	0.7	30.0	30.0	269.0
33	7/30/77			NO DATA	0.0	0.0	269.0
33	7/30/77			NO DATA	0.8	0.8	269.7
33	8/ 1/77	19	0	0.0	0.0	0.0	269.7
33	8/ 1/77	19	1	34.2	0.6	0.6	270.3
33	8/ 1/77	19	6	3.4	0.9	0.9	270.6
33	8/ 1/77	19	9	28.5	2.3	2.3	272.0
33	8/ 1/77	19	14	17.1	3.7	3.7	273.4
33	8/ 1/77	19	16	77.0	6.3	6.3	276.0
33	8/ 1/77	19	20	38.5	8.8	8.8	278.6
33	8/ 1/77	19	25	10.3	9.7	9.7	279.4
33	8/ 1/77	19	36	3.1	10.3	10.3	280.0
33	8/ 1/77	19	43	4.9	10.8	10.8	280.6
33	8/ 1/77	19	45	68.4	13.1	13.1	282.9
33	8/ 1/77	19	54	1.9	13.4	13.4	283.1
33	8/ 1/77	20	2	6.4	14.3	14.3	284.0
33	8/ 1/77	20	20	1.9	14.8	14.8	284.6
33	8/ 1/77	20	30	6.8	16.0	16.0	285.7
33	8/ 1/77	20	35	3.4	16.3	16.3	286.0
33	8/ 5/77	11	0	0.0	0.0	0.0	286.0
33	8/ 5/77	11	24	5.3	2.1	2.1	288.1
33	8/ 5/77	11	30	13.3	3.4	3.4	289.4
33	8/ 5/77	11	33	10.6	4.0	4.0	290.0
33	8/ 5/77	11	35	79.6	6.6	6.6	292.6
33	8/ 5/77	11	39	67.7	11.1	11.1	297.1
33	8/ 5/77	11	41	39.8	12.5	12.5	298.5
33	8/ 5/77	11	49	19.9	15.1	15.1	301.1
33	8/ 5/77	11	52	10.6	15.7	15.7	301.7
33	8/ 5/77	12	3	7.2	17.0	17.0	303.0
33	8/ 5/77	12	10	2.3	17.2	17.2	303.2
33	8/ 5/77	12	30	0.8	17.5	17.5	303.5
33	8/ 5/77	12	40	1.6	17.8	17.8	303.8
33	8/ 7/77	23	30	0.0	0.0	0.0	303.8
33	8/ 7/77	23	32	55.7	1.9	1.9	305.6
33	8/ 7/77	23	38	2.7	2.1	2.1	305.9
33	8/ 7/77	23	40	15.9	2.7	2.7	306.4
33	8/ 7/77	23	59	1.7	3.2	3.2	307.0
33	8/ 8/77	0	8	0.0	3.2	0.0	307.0
33	8/ 8/77	0	11	42.4	5.3	2.1	309.1

TABLE 81- 9. CONTINUED

GAGE	DATE	HOUR	MIN	PRECIP INTENSITY MM/HR	ACCUMULATED STORM MM	PRECIPITATION DAY MM	PRECIPITATION YEAR MM
33	8/ 8/77	0	13	15.9	5.8	2.7	309.6
33	8/ 8/77	0	15	23.9	6.6	3.4	310.4
33	8/ 8/77	0	17	0.0	6.6	3.4	310.4
33	8/ 8/77	0	20	21.2	7.7	4.5	311.5
33	8/ 8/77	0	23	5.3	8.0	4.8	311.7
33	8/ 8/77	0	54	0.5	8.2	5.0	312.0
33	8/ 8/77	0	59	6.4	8.8	5.6	312.5
33	8/ 8/77	1	9	19.1	11.9	8.8	315.7
33	8/ 8/77	1	12	10.6	12.5	9.3	316.2
33	8/ 8/77	1	24	1.3	12.7	9.5	316.5
33	8/ 8/77	1	47	1.4	13.3	10.1	317.0
33	8/ 8/77	3	36	0.3	13.8	10.6	317.6
33	8/ 8/77	3	39	5.3	14.1	10.9	317.8
33	8/ 8/77	3	50	0.0	14.1	10.9	317.8
33	8/ 8/77	3	54	4.0	14.3	11.1	318.1
33	8/ 8/77	4	57	0.3	14.6	11.4	318.4
33	8/ 8/77	5	1	4.0	14.9	11.7	318.6
33	8/ 8/77	5	3	15.9	15.4	12.2	319.2
33	8/ 8/77	5	20	1.9	15.9	12.7	319.7
33	8/ 8/77	5	26	8.0	16.7	13.5	320.5
33	8/ 8/77	6	14	0.3	17.0	13.8	320.7
33	8/ 8/77	6	34	1.6	17.5	14.3	321.3
33	8/ 8/77	9	58	0.0	17.5	14.3	321.3
33	8/ 8/77	9	59	31.8	18.0	14.9	321.8
33	8/ 9/77	5	26	0.0	0.0	0.0	321.8
33	8/ 9/77	5	30	23.9	1.6	1.6	323.4
33	8/ 9/77	5	34	8.0	2.1	2.1	323.9
33	8/ 9/77	6	4	0.5	2.4	2.4	324.2
33	8/ 9/77	6	24	0.8	2.7	2.7	324.5
33	8/ 9/77	6	31	2.3	2.9	2.9	324.7
33	8/ 9/77	7	37	0.7	3.7	3.7	325.5
33	8/ 9/77	8	22	7.1	9.0	9.0	330.8
33	8/ 9/77	8	24	8.0	9.3	9.3	331.1
33	8/ 9/77	8	37	6.1	10.6	10.6	332.4
33	8/ 9/77	8	52	4.2	11.7	11.7	333.5
33	8/13/77			NO DATA	0.0	0.0	333.5
33	8/13/77			NO DATA	5.8	5.8	339.3
33	8/15/77	18	0	0.0	0.0	0.0	339.3
33	8/15/77	18	10	9.6	1.6	1.6	340.9
33	8/15/77	18	26	3.0	2.4	2.4	341.7
33	8/15/77	18	43	0.9	2.7	2.7	342.0
33	8/15/77	19	17	1.4	3.5	3.5	342.8
33	8/15/77	19	21	16.0	4.5	4.5	343.9
33	8/15/77	19	23	16.0	5.1	5.1	344.4
33	8/15/77	19	26	10.7	5.6	5.6	344.9
33	8/15/77	19	44	0.9	5.9	5.9	345.2
33	8/15/77	19	48	12.0	6.7	6.7	346.0
33	8/15/77	19	55	2.3	6.9	6.9	346.3
33	8/15/77	20	3	6.0	7.7	7.7	347.1
33	8/15/77	20	12	5.3	8.5	8.5	347.9
33	8/15/77	20	21	3.6	9.1	9.1	348.4
33	8/15/77	20	34	14.8	12.3	12.3	351.6
33	8/15/77	20	38	8.0	12.8	12.8	352.1
33	8/15/77	20	48	1.6	13.1	13.1	352.4
33	8/15/77	21	3	2.1	13.6	13.6	352.9
33	8/15/77	21	30	0.6	13.9	13.9	353.2
33	8/15/77	21	33	5.3	14.1	14.1	353.5
33	8/15/77	21	44	1.5	14.4	14.4	353.7
33	8/15/77	21	52	2.0	14.7	14.7	354.0
33	8/15/77	22	3	4.4	15.5	15.5	354.8
33	8/15/77	22	7	4.0	15.7	15.7	355.1
33	8/15/77	22	9	24.0	16.5	16.5	355.9
33	8/15/77	22	12	16.0	17.3	17.3	356.7
33	8/15/77	22	16	68.0	21.9	21.9	361.2
33	8/15/77	22	18	199.9	28.5	28.5	367.8
33	8/15/77	22	21	69.3	32.0	32.0	371.3
33	8/15/77	23	27	2.9	35.2	35.2	374.5
33	8/15/77	23	33	2.7	35.4	35.4	374.8
33	8/15/77	23	49	1.0	35.7	35.7	375.0
33	8/16/77	0	13	2.7	36.8	1.1	376.1
33	8/16/77	0	30	1.9	37.3	1.6	376.6
33	8/16/77	0	53	1.4	37.8	2.1	377.2
33	8/19/77			NO DATA	0.0	0.0	377.2
33	8/19/77			NO DATA	5.1	5.1	382.3
33	8/21/77			NO DATA	0.0	0.0	382.3
33	8/21/77			NO DATA	2.5	2.5	384.8
33	8/25/77	21	30	0.0	0.0	0.0	384.8
33	8/25/77	21	31	34.0	0.6	0.6	385.4
33	8/25/77	21	37	2.8	0.8	0.8	385.6
33	8/25/77	21	39	8.5	1.1	1.1	385.9
33	8/25/77	21	45	5.7	1.7	1.7	386.5
33	8/25/77	21	47	17.0	2.3	2.3	387.1
33	8/25/77	22	0	3.9	3.1	3.1	387.9
33	8/25/77	22	26	0.7	3.4	3.4	388.2
33	8/25/77	22	34	4.2	4.0	4.0	388.8
33	8/25/77	22	40	22.7	6.2	6.2	391.0
33	8/25/77	22	42	68.0	8.5	8.5	393.3
33	8/25/77	22	47	13.6	9.6	9.6	394.4
33	8/25/77	22	50	34.0	11.3	11.3	396.1
33	8/25/77	22	56	53.8	16.7	16.7	401.5
33	8/25/77	23	0	4.2	17.0	17.0	401.8
33	8/25/77	23	2	8.5	17.3	17.3	402.1
33	8/25/77	23	56	0.3	17.6	17.6	402.4
33	8/25/77	23	58	42.5	19.0	19.0	403.8
33	8/25/77	23	59	17.0	19.3	19.3	404.1
33	8/26/77	0	10	1.5	19.5	0.3	404.3
33	8/26/77	0	12	59.5	21.5	2.3	406.3
33	8/26/77	0	20	4.2	22.1	2.8	406.9

TABLE B1- 9. CONTINUED

GAGE	DATE	HOUR	MIN	PRECIP INTENSITY MM/HR	ACCUMULATED STORM MM	PRECIPITATION DAY MM	PRECIPITATION YEAR MM
33	8/27/77	19	58	0.0	0.0	0.0	406.9
33	8/27/77	20	2	54.3	3.6	3.6	410.5
33	8/27/77	20	13	1.4	3.9	3.9	410.8
33	8/27/77	20	15	31.0	4.9	4.9	411.8
33	8/27/77	20	17	7.8	5.2	5.2	412.1
33	8/27/77	20	23	5.2	5.7	5.7	412.6
33	8/27/77	20	33	1.6	5.9	5.9	412.8
33	8/27/77	20	36	15.5	6.7	6.7	413.6
33	8/27/77	20	38	7.8	7.0	7.0	413.9
33	8/27/77	20	43	3.1	7.2	7.2	414.1
33	8/27/77	20	48	3.1	7.5	7.5	414.4
33	8/27/77	20	52	11.6	8.3	8.3	415.2
33	8/27/77	22	48	0.3	8.8	8.8	415.7
33	8/27/77	22	50	7.8	9.1	9.1	415.9
33	8/27/77	22	53	5.2	9.3	9.3	416.2
33	8/27/77	23	0	4.4	9.8	9.8	416.7
33	8/27/77	23	6	5.2	10.3	10.3	417.2
33	8/27/77	23	30	2.6	11.4	11.4	418.3
33	8/27/77	23	42	1.3	11.6	11.6	418.5
33	8/27/77	23	45	10.3	12.2	12.2	419.0
33	8/27/77	23	47	7.8	12.4	12.4	419.3
33	8/27/77	23	53	2.6	12.7	12.7	419.6
33	8/27/77	23	55	7.8	12.9	12.9	419.8
33	8/28/77	0	5	3.1	13.5	0.5	420.3
33	8/28/77	0	19	2.2	14.0	1.0	420.9
33	8/28/77	0	22	5.2	14.2	1.3	421.1
33	8/28/77	0	35	4.8	15.3	2.3	422.1
33	8/28/77	0	36	62.1	16.3	3.4	423.2
33	8/28/77	0	44	11.6	17.8	4.9	424.7
33	8/28/77	0	56	2.6	18.4	5.4	425.2
33	8/28/77	1	0	3.9	18.6	5.7	425.5
33	8/28/77	1	14	2.2	19.1	6.2	426.0
33	8/28/77	1	45	1.5	19.9	7.0	426.8
33	8/28/77	1	52	0.0	19.9	7.0	426.8
33	8/28/77	1	59	4.4	20.4	7.5	427.3
33	8/28/77	2	8	3.4	21.0	8.0	427.8
33	8/28/77	2	12	11.6	21.7	8.8	428.6
33	8/28/77	2	17	3.1	22.0	9.1	428.9
33	8/28/77	2	22	3.1	22.2	9.3	429.1
33	8/28/77	2	31	1.7	22.5	9.6	429.4
33	8/28/77	2	33	15.5	23.0	10.1	429.9
33	8/28/77	2	42	1.7	23.3	10.3	430.2
33	8/28/77	3	27	1.4	24.3	11.4	431.2
33	8/28/77	3	33	2.6	24.6	11.6	431.5
33	8/28/77	4	1	0.6	24.8	11.9	431.7
33	8/28/77	4	37	0.9	25.3	12.4	432.2
33	8/28/77	4	51	3.3	26.1	13.2	433.0
33	8/28/77	6	34	0.2	26.4	13.5	433.3
33	8/28/77	6	36	15.5	26.9	14.0	433.8
33	8/28/77	8	20	0.1	27.2	14.2	434.0
33	8/28/77	8	37	2.7	27.9	15.0	434.8
33	8/28/77	10	10	0.2	28.2	15.3	435.1
33	8/31/77	3	30	0.0	0.0	0.0	435.1
33	8/31/77	4	30	0.5	0.5	0.5	435.6
33	8/31/77	4	44	1.1	0.8	0.8	435.9
33	8/31/77	4	53	3.6	1.3	1.3	436.4
33	8/31/77	5	12	0.8	1.6	1.6	436.7
33	8/31/77	5	46	0.5	1.9	1.9	436.9
33	8/31/77	5	52	2.7	2.1	2.1	437.2
33	8/31/77	6	26	6.1	5.6	5.6	440.7
33	8/31/77	7	10	2.9	7.8	7.8	442.8
33	8/31/77	7	18	2.0	8.0	8.0	443.1
33	8/31/77	7	24	2.7	8.3	8.3	443.4
33	8/31/77	8	10	2.4	10.2	10.2	445.2
33	8/31/77	22	22	0.0	0.0	10.2	445.2
33	8/31/77	22	24	144.7	4.8	15.0	450.1
33	8/31/77	22	26	15.2	5.3	15.5	450.6
33	8/31/77	22	37	1.4	5.6	15.7	450.8
33	9/ 3/77	12	40	0.0	0.0	0.0	450.8
33	9/ 3/77	12	48	2.2	0.3	0.3	451.1
33	9/ 3/77	13	0	4.4	1.2	1.2	452.0
33	9/ 3/77	13	10	3.5	1.7	1.7	452.6
33	9/ 3/77	13	18	4.4	2.3	2.3	453.1
33	9/ 3/77	13	55	6.1	6.1	6.1	456.9
33	9/ 9/77			NO DATA	0.0	0.0	456.9
33	9/ 9/77			NO DATA	1.3	1.3	458.2
33	9/12/77			NO DATA	0.0	0.0	458.2
33	9/12/77			NO DATA	1.5	1.5	459.7
33	9/15/77			NO DATA	0.0	0.0	459.7
33	9/15/77			NO DATA	3.8	3.8	463.5
33	9/17/77	5	10	0.0	0.0	0.0	463.5
33	9/17/77	6	1	6.2	5.2	5.2	468.8
33	9/17/77	6	3	15.7	5.8	5.8	469.3
33	9/17/77	6	14	5.7	6.8	6.8	470.3
33	9/17/77	19	20	0.0	6.8	6.8	470.3
33	9/17/77	19	24	59.0	10.7	10.7	474.3
33	9/17/77	19	32	3.9	11.3	11.3	474.8
33	9/17/77	19	38	86.5	19.9	19.9	483.4
33	9/17/77	19	40	15.7	20.5	20.5	484.0
33	9/17/77	19	56	2.0	21.0	21.0	484.5
33	9/17/77	20	2	7.9	21.8	21.8	485.3
33	9/17/77	20	9	58.4	28.6	28.6	492.1
33	9/17/77	20	12	10.5	29.1	29.1	492.6
33	9/17/77	21	52	0.2	29.4	29.4	492.9
33	9/17/77	21	54	7.9	29.6	29.6	493.1
33	9/17/77	22	3	1.7	29.9	29.9	493.4
33	9/17/77	22	4	62.9	30.9	30.9	494.5
33	9/17/77	22	31	0.6	31.2	31.2	494.7

TABLE B1- 9. CONTINUED

GAGE	DATE	HOUR	MIN	PRECIP INTENSITY MM/HR	ACCUMULATED STORM MM	PRECIPITATION DAY MM	YEAR MM
33	9/17/77	22	39	17.7	33.6	33.6	497.1
33	9/17/77	22	41	7.9	33.8	33.8	497.3
33	9/17/77	23	1	0.0	33.8	33.8	497.3
33	9/17/77	23	3	15.7	34.3	34.3	497.9
33	9/17/77	23	12	3.5	34.9	34.9	498.4
33	9/18/77	4	20	0.0	34.9	0.0	498.4
33	9/18/77	5	50	4.9	42.2	7.3	505.7
33	9/18/77	5	55	22.0	44.0	9.2	507.6
33	9/18/77	6	4	12.2	45.9	11.0	509.4
33	9/18/77	7	7	0.5	46.4	11.5	509.9
33	9/18/77	7	10	36.7	48.2	13.4	511.8
33	9/18/77	7	14	7.9	48.8	13.9	512.3
33	9/23/77	8	0	0.0	0.0	0.0	512.3
33	9/23/77	8	50	1.6	1.4	1.4	513.6
33	9/23/77	9	20	0.5	1.6	1.6	513.9
33	9/23/77	9	35	1.1	1.9	1.9	514.2
33	9/23/77	9	59	3.4	3.3	3.3	515.6
33	9/23/77	10	6	7.0	4.1	4.1	516.4
33	9/23/77	10	30	3.4	5.4	5.4	517.7
33	9/23/77	11	0	1.1	6.0	6.0	518.3
33	9/23/77	11	10	1.6	6.3	6.3	518.6
33	9/23/77	11	20	3.3	6.8	6.8	519.1
33	9/23/77	11	29	1.6	7.1	7.1	519.4
33	9/23/77	15	24	0.2	7.9	7.9	520.2
33	9/23/77	15	26	16.3	8.4	8.4	520.7
33	9/23/77	15	28	8.2	8.7	8.7	521.0
33	9/23/77	15	40	1.4	9.0	9.0	521.3
33	9/23/77	15	44	4.1	9.3	9.3	521.5
33	9/23/77	16	0	1.0	9.5	9.5	521.8
33	9/23/77	21	15	0.0	9.5	9.5	521.8
33	9/23/77	21	16	81.8	10.9	10.9	523.2
33	9/23/77	21	20	4.1	11.2	11.2	523.5
33	9/23/77	21	22	32.7	12.3	12.3	524.5
33	9/23/77	21	49	1.8	13.1	13.1	525.4
33	9/23/77	22	0	10.4	15.0	15.0	527.3
33	9/30/77			NO DATA	0.0	0.0	527.3
33	9/30/77			NO DATA	19.1	19.1	546.3
33	10/ 7/77	7	25	0.0	0.0	0.0	546.3
33	10/ 7/77	8	5	1.5	1.0	1.0	547.3
33	10/ 7/77	8	9	3.7	1.2	1.2	547.6
33	10/ 7/77	8	37	0.0	1.2	1.2	547.6
33	10/ 7/77	8	45	1.9	1.5	1.5	547.8
33	10/ 7/77	9	9	0.6	1.7	1.7	548.1
33	10/ 7/77	9	37	1.6	2.5	2.5	548.8
33	10/ 7/77	9	57	1.5	3.0	3.0	549.3
33	10/ 7/77	10	6	1.7	3.2	3.2	549.6
33	10/ 7/77	10	25	3.9	4.5	4.5	550.8
33	10/ 7/77	10	35	4.5	5.2	5.2	551.6
33	10/ 7/77	10	40	3.0	5.5	5.5	551.8
33	10/ 7/77	10	42	7.5	5.7	5.7	552.1
33	10/ 7/77	10	58	1.9	6.2	6.2	552.6
33	10/ 7/77	11	20	3.4	7.5	7.5	553.8
33	10/ 7/77	11	38	0.8	7.7	7.7	554.0
33	10/ 7/77	11	53	3.0	8.5	8.5	554.8
33	10/ 7/77	12	17	2.5	9.5	9.5	555.8
33	10/ 7/77	12	25	3.7	10.0	10.0	556.3
33	10/ 7/77	12	31	2.5	10.2	10.2	556.5
33	10/ 7/77	12	34	5.0	10.5	10.5	556.8
33	10/ 7/77	12	39	6.0	11.0	11.0	557.3
33	10/ 7/77	12	48	5.0	11.7	11.7	558.0
33	10/ 7/77	13	1	3.5	12.5	12.5	558.8
33	10/ 7/77	13	5	11.2	13.2	13.2	559.5
33	10/ 7/77	13	10	6.0	13.7	13.7	560.0
33	10/ 7/77	13	12	7.5	14.0	14.0	560.3
33	10/ 7/77	13	18	2.5	14.2	14.2	560.5
33	10/ 7/77	13	33	4.0	15.2	15.2	561.5
33	10/ 7/77	13	59	2.3	16.2	16.2	562.5
33	10/ 7/77	14	11	1.2	16.5	16.5	562.8
33	10/ 7/77	14	25	1.1	16.7	16.7	563.0
33	10/ 7/77	14	31	2.5	17.0	17.0	563.3
33	10/ 7/77	14	45	3.2	17.7	17.7	564.0
33	10/ 7/77	14	55	6.0	18.7	18.7	565.0
33	10/ 7/77	15	10	5.0	20.0	20.0	566.3
33	10/ 7/77	15	18	1.9	20.2	20.2	566.5
33	10/ 7/77	15	26	7.5	21.2	21.2	567.5
33	10/ 7/77	15	53	4.4	23.2	23.2	569.5
33	10/ 7/77	15	59	2.5	23.4	23.4	569.8
33	10/ 7/77	16	15	7.5	25.4	25.4	571.8
33	10/ 7/77	18	48	0.4	26.4	26.4	572.7
33	10/ 7/77	20	35	0.6	27.4	27.4	573.7
33	10/10/77	14	35	0.0	0.0	0.0	573.7
33	10/10/77	14	50	5.6	1.4	1.4	575.1
33	10/10/77	15	5	1.4	1.7	1.7	575.5
33	10/10/77	15	11	3.5	2.1	2.1	575.8
33	10/10/77	15	20	9.3	3.5	3.5	577.2
33	10/10/77	15	28	2.6	3.8	3.8	577.6
33	10/10/77	15	39	9.5	5.6	5.6	579.3
33	10/10/77	15	59	3.1	6.6	6.6	580.3
33	10/21/77	10	49	0.0	0.0	0.0	580.3
33	10/21/77	11	0	4.3	0.8	0.8	581.1
33	10/21/77	12	30	3.5	6.1	6.1	586.4
33	10/21/77	13	30	1.1	7.1	7.1	587.5
33	10/22/77	13	10	0.0	0.0	0.0	587.5
33	10/22/77	14	10	2.0	2.0	2.0	589.5
33	10/22/77	16	10	1.0	4.1	4.1	591.5
33	10/22/77	18	30	0.4	5.1	5.1	592.5
33	10/23/77	1	37	0.0	0.0	0.0	592.5

TABLE B1- 9. CONTINUED

GAGE	DATE	HOUR	MIN	PRECIP INTENSITY MM/HR	ACCUMULATED STORM MM	PRECIPITATION DAY MM	PRECIPITATION YEAR MM
33	10/23/77	1	52	9.5	2.4	2.4	594.9
33	10/23/77	1	56	4.0	2.6	2.6	595.2
33	10/23/77	2	2	2.6	2.9	2.9	595.4
33	10/23/77	2	6	7.9	3.4	3.4	596.0
33	10/23/77	2	12	2.6	3.7	3.7	596.2
33	10/23/77	2	19	4.5	4.2	4.2	596.8
33	10/23/77	2	29	1.6	4.5	4.5	597.0
33	10/23/77	2	40	1.4	4.7	4.7	597.3
33	10/23/77	2	49	3.5	5.3	5.3	597.8
33	10/23/77	2	54	3.2	5.5	5.5	598.1
33	10/23/77	3	34	0.4	5.8	5.8	598.3
33	10/23/77	5	59	0.0	5.8	5.8	598.3
33	10/23/77	6	9	1.6	6.1	6.1	598.6
33	10/23/77	6	19	1.6	6.3	6.3	598.9
33	10/23/77	6	25	2.6	6.6	6.6	599.1
33	10/23/77	6	33	4.0	7.1	7.1	599.7
33	10/23/77	6	53	6.3	9.2	9.2	601.8
33	10/23/77	6	59	5.3	9.7	9.7	602.3
33	10/23/77	8	3	0.0	9.7	9.7	602.3
33	10/23/77	8	9	5.3	10.3	10.3	602.8
33	10/23/77	8	21	4.0	11.1	11.1	603.6
33	10/23/77	8	25	7.9	11.6	11.6	604.1
33	10/23/77	8	31	5.3	12.1	12.1	604.7
33	10/23/77	8	36	3.2	12.4	12.4	604.9
33	10/23/77	8	51	0.0	12.4	12.4	604.9
33	10/23/77	9	1	7.9	13.7	13.7	606.2
33	10/23/77	9	11	3.2	14.2	14.2	606.8
33	10/23/77	9	19	5.9	15.0	15.0	607.6
33	10/23/77	9	26	11.3	16.3	16.3	608.9
33	10/23/77	9	35	12.3	18.2	18.2	610.7
33	10/23/77	9	44	5.3	19.0	19.0	611.5
33	10/23/77	9	49	3.2	19.2	19.2	611.8
33	10/23/77	9	59	1.6	19.5	19.5	612.0
33	10/23/77	11	13	0.0	19.5	19.5	612.0
33	10/23/77	12	9	0.8	20.3	20.3	612.8
33	10/23/77	12	27	1.8	20.8	20.8	613.4
33	10/23/77	13	5	0.4	21.1	21.1	613.6
33	10/23/77	13	13	4.0	21.6	21.6	614.1
33	10/23/77	13	25	1.3	21.9	21.9	614.4
33	10/23/77	13	35	1.6	22.1	22.1	614.7
33	10/23/77	13	47	4.0	22.9	22.9	615.5
33	10/23/77	14	4	1.9	23.4	23.4	616.0
33	10/23/77	14	25	0.8	23.7	23.7	616.2
33	10/23/77	14	33	9.9	25.0	25.0	617.6
33	10/23/77	14	40	4.5	25.6	25.6	618.1
33	10/23/77	14	49	3.5	26.1	26.1	618.6
33	10/23/77	15	12	2.1	26.9	26.9	619.4
33	10/23/77	15	16	7.9	27.4	27.4	619.9
33	10/23/77	15	34	3.5	28.5	28.5	621.0
33	10/23/77	15	56	2.2	29.2	29.2	621.8
33	10/23/77	16	30	1.4	30.0	30.0	622.6
33	10/23/77	17	35	0.7	30.8	30.8	623.4
33	10/23/77	17	38	21.1	31.9	31.9	624.4
33	10/23/77	17	40	7.9	32.1	32.1	624.7
33	10/23/77	17	49	3.5	32.7	32.7	625.2
33	10/23/77	17	54	6.3	33.2	33.2	625.7
33	10/23/77	17	59	3.2	33.5	33.5	626.0
33	10/23/77	18	19	1.6	34.0	34.0	626.5
33	10/23/77	19	9	0.3	34.3	34.3	626.8
33	10/24/77	1	55	0.0	34.3	0.0	626.8
33	10/24/77	2	0	6.3	34.8	0.5	627.3
33	10/24/77	4	15	0.0	34.8	0.5	627.3
33	10/24/77	4	21	2.6	35.0	0.8	627.6
33	10/24/77	4	37	1.0	35.3	1.1	627.8
33	10/24/77	4	40	15.8	36.1	1.8	628.6
33	10/24/77	5	14	0.0	36.1	1.8	628.6
33	10/24/77	5	16	7.9	36.4	2.1	628.9
33	10/24/77	5	24	2.0	36.6	2.4	629.2
33	10/24/77	5	26	23.7	37.4	3.2	629.9
33	10/24/77	5	28	15.8	37.9	3.7	630.5
33	10/24/77	5	39	2.9	38.5	4.2	631.0
33	10/24/77	5	52	3.6	39.3	5.0	631.8
33	10/24/77	6	5	2.4	39.8	5.5	632.3
33	10/24/77	6	51	0.3	40.0	5.8	632.6
33	10/24/77	6	54	5.3	40.3	6.1	632.8
33	10/24/77	7	3	0.0	40.3	6.1	632.8
33	10/24/77	7	7	7.9	40.8	6.6	633.4
33	10/24/77	7	15	2.0	41.1	6.9	633.6
33	10/24/77	7	20	3.2	41.4	7.1	633.9
33	10/24/77	7	25	3.2	41.6	7.4	634.2
33	10/24/77	7	34	3.5	42.2	7.9	634.7
33	10/24/77	7	39	3.2	42.4	8.2	635.0
33	10/30/77	21	35	0.0	0.0	0.0	635.0
33	10/30/77	21	45	5.1	0.8	0.8	635.8
33	10/30/77	22	10	0.7	1.1	1.1	636.1
33	10/30/77	22	25	1.1	1.4	1.4	636.4
33	10/30/77	22	28	17.0	2.3	2.3	637.2
33	10/31/77	0	5	0.4	2.8	0.6	637.8
33	10/31/77	0	35	0.6	3.1	0.8	638.1
33	10/31/77	0	51	1.1	3.4	1.1	638.3
33	10/31/77	1	10	0.9	3.7	1.4	638.6
33	10/31/77	1	19	1.9	4.0	1.7	638.9
33	10/31/77	1	29	1.7	4.2	2.0	639.2
33	10/31/77	1	40	3.1	4.8	2.5	639.8
33	10/31/77	1	50	5.1	5.7	3.4	640.6
33	10/31/77	2	6	2.1	6.2	4.0	641.2
33	10/31/77	2	49	2.0	7.6	5.4	642.6
33	10/31/77	2	51	51.0	9.3	7.1	644.3
33	10/31/77	2	59	4.2	9.9	7.6	644.9
33	10/31/77	3	2	5.7	10.2	7.9	645.1
33	10/31/77	3	5	5.7	10.5	8.2	645.4
33	10/31/77	3	7	17.0	11.0	8.8	646.0
33	10/31/77	3	9	8.5	11.3	9.1	646.3

TABLE B1- 9. CONCLUDED

GAGE	DATE	HOUR	MIN	PRECIP INTENSITY MM/HR	ACCUMULATED STORM MM	PRECIPITATION DAY MM	PRECIPITATION YEAR MM
33	10/31/77	3	11	8.5	11.6	9.3	646.6
33	10/31/77	3	15	8.5	12.2	9.9	647.1
33	10/31/77	3	19	17.0	13.3	11.0	648.3
33	10/31/77	3	24	10.2	14.2	11.9	649.1
33	10/31/77	3	39	2.3	14.7	12.5	649.7
33	10/31/77	3	41	8.5	15.0	12.7	650.0
33	10/31/77	3	49	2.1	15.3	13.0	650.2
33	10/31/77	3	56	4.9	15.9	13.6	650.8
33	10/31/77	4	0	4.2	16.1	13.9	651.1
33	10/31/77	5	5	1.0	17.3	15.0	652.2
33	11/ 1/77			NO DATA	0.0	0.0	652.2
33	11/ 1/77			NO DATA	2.0	2.0	654.3
33	11/ 3/77			NO DATA	0.0	0.0	654.3
33	11/ 3/77			NO DATA	2.5	2.5	656.8
33	11/ 9/77			NO DATA	0.0	0.0	656.8
33	11/ 9/77			NO DATA	1.3	1.3	658.1
33	11/20/77			NO DATA	0.0	0.0	658.1
33	11/20/77			NO DATA	5.8	5.8	663.9

GAGE	DATE	HOUR	MIN	PRECIP INTENSITY MM/HR	ACCUMULATED STORM MM	PRECIPITATION DAY MM	PRECIPITATION YEAR MM

TABLE B1-10. FOUR MILE CREEK WATERSHED PRECIPITATION DATA FOR 1977 GAGE 34

GAGE	DATE	HOUR	MIN	PRECIP INTENSITY MM/HR	ACCUMULATED STORM MM	PRECIPITATION DAY MM	YEAR MM
34	4/ 1/77	19	40	0.0	0.0	0.0	0.0
34	4/ 1/77	20	0	7.4	2.5	2.5	2.5
34	4/ 1/77	20	10	4.9	3.3	3.3	3.3
34	4/ 1/77	20	18	2.1	3.6	3.6	3.6
34	4/ 1/77	20	30	0.0	3.6	3.6	3.6
34	4/ 1/77	20	37	4.7	4.1	4.1	4.1
34	4/ 1/77	20	48	6.0	5.2	5.2	5.2
34	4/ 1/77	20	51	5.5	5.5	5.5	5.5
34	4/ 1/77	21	3	5.5	6.6	6.6	6.6
34	4/ 1/77	21	20	1.9	7.1	7.1	7.1
34	4/ 2/77	0	30	0.0	7.1	0.0	7.1
34	4/ 2/77	0	40	1.6	7.4	0.3	7.4
34	4/ 2/77	1	30	0.3	7.7	0.5	7.7
34	4/ 2/77	1	39	3.7	8.2	1.1	8.2
34	4/ 2/77	1	50	1.5	8.5	1.4	8.5
34	4/ 2/77	2	2	2.7	9.1	1.9	9.1
34	4/ 2/77	2	16	3.5	9.9	2.7	9.9
34	4/ 2/77	3	10	0.3	10.2	3.0	10.2
34	4/ 2/77			NO DATA	0.0	3.0	10.2
34	4/ 2/77			NO DATA	2.5	5.6	12.7
34	4/ 3/77	19	40	0.0	0.0	0.0	12.7
34	4/ 3/77	20	6	1.8	0.8	0.8	13.5
34	4/ 3/77	20	40	0.9	1.3	1.3	14.0
34	4/ 3/77	20	55	2.0	1.8	1.8	14.5
34	4/ 3/77	21	13	0.8	2.0	2.0	14.7
34	4/ 3/77	22	4	1.5	3.3	3.3	16.0
34	4/ 3/77	22	57	1.2	4.3	4.3	17.0
34	4/ 3/77	23	10	1.2	4.6	4.6	17.3
34	4/ 4/77	2	10	0.2	5.1	0.5	17.8
34	4/ 4/77	2	30	1.5	5.6	1.0	18.3
34	4/ 4/77	3	0	1.5	6.3	1.8	19.0
34	4/ 4/77	3	20	1.5	6.9	2.3	19.6
34	4/ 4/77	3	50	1.5	7.6	3.0	20.3
34	4/ 4/77	5	30	0.3	8.1	3.6	20.8
34	4/ 4/77	6	0	0.5	8.4	3.8	21.1
34	4/ 4/77	6	40	0.8	8.9	4.3	21.6
34	4/ 4/77			NO DATA	0.0	4.3	21.6
34	4/ 4/77			NO DATA	2.5	6.9	24.1
34	4/14/77			NO DATA	0.0	0.0	24.1
34	4/14/77			NO DATA	2.5	2.5	26.7
34	4/17/77			NO DATA	0.0	0.0	26.7
34	4/17/77			NO DATA	1.3	1.3	27.9
34	4/19/77	16	52	0.0	0.0	0.0	27.9
34	4/19/77	16	55	55.4	2.8	2.8	30.7
34	4/19/77	17	0	14.8	4.0	4.0	31.9
34	4/19/77	17	4	46.2	7.1	7.1	35.0
34	4/19/77	17	11	10.6	8.3	8.3	36.3
34	4/19/77	17	30	5.8	10.2	10.2	38.1
34	4/20/77	20	30	0.0	0.0	0.0	38.1
34	4/20/77	20	32	7.6	0.3	0.3	38.4
34	4/20/77	20	34	68.6	2.5	2.5	40.6
34	4/20/77	20	37	15.2	3.3	3.3	41.4
34	4/20/77	20	40	5.1	3.6	3.6	41.7
34	4/20/77	20	45	6.1	4.1	4.1	42.2
34	4/20/77	21	2	0.9	4.3	4.3	42.4
34	4/20/77	21	15	1.2	4.6	4.6	42.7
34	4/20/77	21	35	1.5	5.1	5.1	43.2
34	4/20/77	21	51	1.0	5.3	5.3	43.4
34	4/20/77	22	1	1.5	5.6	5.6	43.7
34	4/20/77	22	6	6.1	6.1	6.1	44.2
34	4/20/77	22	25	0.8	6.3	6.3	44.4
34	4/20/77	23	10	0.3	6.6	6.6	44.7
34	4/20/77	23	16	2.5	6.9	6.9	45.0
34	4/21/77	0	10	0.3	7.1	0.3	45.2
34	4/21/77	0	13	10.2	7.6	0.8	45.7
34	4/21/77	0	19	2.5	7.9	1.0	46.0
34	4/21/77	0	26	4.4	8.4	1.5	46.5
34	4/21/77	0	33	2.2	8.6	1.8	46.7
34	4/21/77	0	42	5.1	9.4	2.5	47.5
34	4/21/77	0	45	10.2	9.9	3.0	48.0
34	4/21/77	0	53	3.8	10.4	3.6	48.5
34	4/21/77	1	0	4.4	10.9	4.1	49.0
34	4/21/77	1	6	2.5	11.2	4.3	49.3
34	4/21/77	1	17	2.8	11.7	4.8	49.8
34	4/21/77	1	24	2.2	11.9	5.1	50.0
34	4/21/77	1	33	1.7	12.2	5.3	50.3
34	4/21/77	1	40	2.2	12.4	5.6	50.5
34	4/21/77	1	50	1.5	12.7	5.8	50.8
34	4/21/77	1	57	2.2	13.0	6.1	51.1
34	4/21/77	2	55	0.3	13.2	6.3	51.3
34	4/21/77	3	30	0.4	13.5	6.6	51.6
34	4/21/77	4	19	0.0	13.5	6.6	51.6
34	4/21/77	4	33	2.2	14.0	7.1	52.1
34	4/21/77	5	21	0.3	14.2	7.4	52.3
34	4/21/77	5	50	0.0	14.2	7.4	52.3
34	4/21/77	6	27	0.4	14.5	7.6	52.6
34	4/21/77	7	5	0.4	14.7	7.9	52.8
34	4/28/77			NO DATA	0.0	0.0	52.8
34	4/28/77			NO DATA	5.1	5.1	57.9
34	5/ 3/77	20	20	0.0	0.0	0.0	57.9
34	5/ 3/77	20	40	0.7	0.2	0.2	58.2
34	5/ 3/77	21	35	0.3	0.5	0.5	58.4
34	5/ 3/77	21	42	2.1	0.7	0.7	58.7
34	5/ 3/77	22	25	0.3	1.0	1.0	58.9
34	5/ 4/77	2	30	0.0	1.0	0.0	58.9

TABLE B1-10. CONTINUED

GAGE	DATE	HOUR	MIN	PRECIP INTENSITY MM/HR	ACCUMULATED STORM MM	PRECIPITATION DAY MM	PRECIPITATION YEAR MM
34	5/ 4/77	3	0	0.5	1.2	0.2	59.2
34	5/ 4/77	5	50	0.0	1.2	0.2	59.2
34	5/ 4/77	6	30	0.4	1.5	0.5	59.4
34	5/ 4/77	8	45	0.0	1.5	0.5	59.4
34	5/ 4/77	8	46	15.0	1.7	0.7	59.7
34	5/ 4/77	8	47	74.8	3.0	2.0	60.9
34	5/ 4/77	8	49	22.5	3.7	2.7	61.7
34	5/ 4/77	8	53	7.5	4.2	3.2	62.2
34	5/ 4/77	16	28	0.0	4.2	3.2	62.2
34	5/ 4/77	16	29	29.9	4.7	3.7	62.7
34	5/ 4/77	16	31	15.0	5.2	4.2	63.1
34	5/ 4/77	16	33	7.5	5.5	4.5	63.4
34	5/ 4/77	16	40	2.1	5.7	4.7	63.6
34	5/ 4/77	16	59	1.6	6.2	5.2	64.1
34	5/ 4/77	17	3	3.7	6.5	5.5	64.4
34	5/ 4/77	17	6	5.0	6.7	5.7	64.6
34	5/ 4/77	17	18	0.0	6.7	5.7	64.6
34	5/ 4/77	17	23	3.0	7.0	6.0	64.9
34	5/ 4/77	17	27	7.5	7.5	6.5	65.4
34	5/ 4/77	17	45	1.7	8.0	7.0	65.9
34	5/ 4/77	17	50	6.0	8.5	7.5	66.4
34	5/ 4/77	18	11	0.7	8.7	7.7	66.6
34	5/ 4/77	18	40	1.0	9.2	8.2	67.1
34	5/ 4/77	22	5	0.1	9.5	8.5	67.4
34	5/ 4/77	22	6	44.9	10.2	9.2	68.1
34	5/ 4/77	22	10	18.7	11.5	10.5	69.4
34	5/ 4/77	22	33	1.3	12.0	11.0	69.9
34	5/ 4/77	22	36	10.0	12.5	11.5	70.4
34	5/ 4/77	22	44	1.9	12.7	11.7	70.6
34	5/ 4/77	23	0	4.7	14.0	13.0	71.9
34	5/15/77			NO DATA	0.0	0.0	71.9
34	5/15/77			NO DATA	1.0	1.0	72.9
34	5/20/77			NO DATA	0.0	0.0	72.9
34	5/20/77			NO DATA	2.5	2.5	75.4
34	5/21/77	12	55	0.0	0.0	0.0	75.4
34	5/21/77	13	2	31.3	3.7	3.7	79.1
34	5/21/77	13	4	14.6	4.1	4.1	79.6
34	5/21/77	13	14	2.9	4.6	4.6	80.1
34	5/21/77	14	0	0.3	4.9	4.9	80.3
34	5/21/77	16	39	0.0	4.9	4.9	80.3
34	5/21/77	16	40	14.6	5.1	5.1	80.6
34	5/21/77	16	47	2.1	5.4	5.4	80.8
34	5/21/77	16	50	9.7	5.8	5.8	81.3
34	5/21/77	16	52	21.9	6.6	6.6	82.0
34	5/21/77	16	53	116.9	8.5	8.5	84.0
34	5/21/77	16	55	21.9	9.3	9.3	84.7
34	5/21/77	17	40	0.3	9.5	9.5	84.9
34	5/21/77	18	0	0.7	9.7	9.7	85.2
34	5/21/77	18	6	7.3	10.5	10.5	85.9
34	5/21/77	18	21	5.8	11.9	11.9	87.4
34	5/29/77			NO DATA	0.0	0.0	87.4
34	5/29/77			NO DATA	2.5	2.5	89.9
34	5/30/77			NO DATA	0.0	0.0	89.9
34	5/30/77			NO DATA	6.9	6.9	96.8
34	6/ 8/77			NO DATA	0.0	0.0	96.8
34	6/ 8/77			NO DATA	6.3	6.3	103.1
34	6/11/77			NO DATA	0.0	0.0	103.1
34	6/11/77			NO DATA	1.3	1.3	104.4
34	6/17/77	13	47	0.0	0.0	0.0	104.4
34	6/17/77	13	49	47.7	1.6	1.6	106.0
34	6/17/77	13	53	59.6	5.6	5.6	110.0
34	6/17/77	13	57	166.9	16.7	16.7	121.1
34	6/17/77	13	59	23.8	17.5	17.5	121.9
34	6/17/77	14	1	79.5	20.1	20.1	124.5
34	6/17/77	14	4	26.5	21.5	21.5	125.8
34	6/17/77	14	10	5.3	22.0	22.0	126.4
34	6/17/77	14	33	0.7	22.3	22.3	126.6
34	6/17/77	14	44	2.9	22.8	22.8	127.2
34	6/17/77	14	45	63.6	23.8	23.8	128.2
34	6/17/77	14	49	7.9	24.4	24.4	128.8
34	6/17/77	15	10	0.8	24.6	24.6	129.0
34	6/23/77	8	58	0.0	0.0	0.0	129.0
34	6/23/77	9	3	55.3	4.6	4.6	133.6
34	6/23/77	9	10	5.6	5.3	5.3	134.3
34	6/23/77	9	16	3.3	5.6	5.6	134.6
34	6/23/77	9	30	7.1	7.2	7.2	136.3
34	6/23/77	9	40	7.9	8.6	8.6	137.6
34	6/23/77	10	0	1.0	8.9	8.9	137.9
34	6/30/77			NO DATA	0.0	0.0	137.9
34	6/30/77			NO DATA	1.0	1.0	138.9
34	7/ 3/77	5	13	0.0	0.0	0.0	138.9
34	7/ 3/77	5	14	35.3	0.6	0.6	139.5
34	7/ 3/77	5	17	17.7	1.5	1.5	140.4
34	7/ 3/77	5	21	30.9	3.5	3.5	142.5
34	7/ 3/77	5	29	2.2	3.8	3.8	142.8
34	7/ 3/77	5	35	11.8	5.0	5.0	143.9
34	7/ 3/77	6	6	0.0	5.0	5.0	143.9
34	7/ 3/77	6	7	88.3	6.5	6.5	145.4
34	7/ 3/77	6	10	29.4	7.9	7.9	146.9
34	7/ 3/77	6	11	70.7	9.1	9.1	148.1
34	7/ 3/77	6	13	44.2	10.6	10.6	149.5
34	7/ 3/77	6	21	8.8	11.8	11.8	150.7
34	7/ 3/77	6	30	3.9	12.4	12.4	151.3

TABLE B1-10. CONTINUED

GAGE	DATE	HOUR	MIN	PRECIP INTENSITY MM/HR	ACCUMULATED STORM MM	PRECIPITATION DAY MM	PRECIPITATION YEAR MM
34	7/ 3/77	7	0	1.2	13.0	13.0	151.9
34	7/ 6/77	20	40	0.0	0.0	0.0	151.9
34	7/ 6/77	20	42	74.7	2.5	2.5	154.4
34	7/ 6/77	20	44	124.5	6.6	6.6	158.5
34	7/ 6/77	20	45	331.7	12.2	12.2	164.1
34	7/ 6/77	20	47	83.0	14.9	14.9	166.8
34	7/ 6/77	20	49	124.4	19.1	19.1	171.0
34	7/ 6/77	20	50	116.2	21.0	21.0	172.9
34	7/ 6/77	20	53	77.4	24.9	24.9	176.8
34	7/ 6/77	20	55	24.9	25.7	25.7	177.6
34	7/ 6/77	21	0	3.3	26.0	26.0	177.9
34	7/ 6/77	21	4	16.6	27.1	27.1	179.0
34	7/ 6/77	21	20	1.0	27.4	27.4	179.3
34	7/ 6/77	21	29	36.9	32.9	32.9	184.8
34	7/ 6/77	21	40	10.6	34.8	34.8	186.7
34	7/ 6/77	21	43	11.1	35.4	35.4	187.3
34	7/ 6/77	21	50	2.4	35.7	35.7	187.6
34	7/ 6/77	22	19	3.4	37.3	37.3	189.2
34	7/11/77			NO DATA	0.0	0.0	189.2
34	7/11/77			NO DATA	0.8	0.8	190.0
34	7/15/77	19	25	0.0	0.0	0.0	190.0
34	7/15/77	19	27	23.5	0.8	0.8	190.8
34	7/15/77	19	30	5.2	1.0	1.0	191.0
34	7/16/77	19	37	2.2	1.3	1.3	191.3
34	7/15/77	19	42	6.3	1.8	1.8	191.8
34	7/15/77	19	44	39.1	3.1	3.1	193.1
34	7/15/77	19	45	31.3	3.7	3.7	193.6
34	7/15/77	19	46	62.6	4.7	4.7	194.7
34	7/15/77	19	47	47.0	5.5	5.5	195.5
34	7/15/77	19	54	6.7	6.3	6.3	196.2
34	7/15/77	20	2	7.8	7.3	7.3	197.3
34	7/15/77	20	18	0.0	7.3	7.3	197.3
34	7/15/77	20	27	7.0	8.3	8.3	198.3
34	7/15/77	20	35	3.9	8.9	8.9	198.9
34	7/15/77	20	44	3.5	9.4	9.4	199.4
34	7/17/77			NO DATA	0.0	0.0	199.4
34	7/17/77			NO DATA	5.1	5.1	204.5
34	7/18/77	4	50	0.0	0.0	0.0	204.5
34	7/18/77	4	53	4.9	0.2	0.2	204.7
34	7/18/77	4	55	14.7	0.7	0.7	205.2
34	7/18/77	6	0	0.0	0.7	0.7	205.2
34	7/18/77	7	0	0.7	1.5	1.5	205.9
34	7/18/77	7	59	0.0	1.5	1.5	205.9
34	7/18/77	10	0	0.1	1.7	1.7	206.2
34	7/18/77	10	34	0.4	2.0	2.0	206.4
34	7/18/77	10	37	14.7	2.7	2.7	207.1
34	7/18/77	11	4	0.5	2.9	2.9	207.4
34	7/18/77	11	5	58.7	3.9	3.9	208.4
34	7/18/77	11	7	22.0	4.6	4.6	209.1
34	7/18/77	11	14	0.0	4.6	4.6	209.1
34	7/18/77	11	20	12.2	5.9	5.9	210.3
34	7/18/77	12	0	1.1	6.6	6.6	211.1
34	7/21/77			NO DATA	0.0	0.0	211.1
34	7/21/77			NO DATA	5.1	5.1	216.1
34	7/24/77			NO DATA	0.0	0.0	216.1
34	7/24/77			NO DATA	3.0	3.0	219.2
34	7/28/77	16	33	0.0	0.0	0.0	219.2
34	7/28/77	16	34	78.5	1.3	1.3	220.5
34	7/28/77	16	35	15.7	1.6	1.6	220.8
34	7/28/77	16	38	78.6	5.5	5.5	224.7
34	7/28/77	16	42	15.7	6.5	6.5	225.7
34	7/28/77	16	49	38.2	11.0	11.0	230.2
34	7/28/77	16	54	15.7	12.3	12.3	231.5
34	7/28/77	16	56	7.9	12.6	12.6	231.8
34	7/28/77	16	58	23.6	13.4	13.4	232.6
34	7/28/77	17	0	125.7	17.6	17.6	236.7
34	7/28/77	17	1	15.7	17.8	17.8	237.0
34	7/28/77	17	3	78.6	20.4	20.4	239.6
34	7/28/77	17	20	0.0	20.4	20.4	239.6
34	7/28/77	17	21	15.7	20.7	20.7	239.9
34	7/28/77	17	30	0.0	20.7	20.7	239.9
34	7/28/77	17	34	19.6	22.0	22.0	241.2
34	7/28/77	17	38	106.1	29.1	29.1	248.3
34	7/28/77	17	40	102.2	32.5	32.5	251.7
34	7/28/77	17	43	10.5	33.0	33.0	252.2
34	7/28/77	17	45	117.9	36.9	36.9	256.1
34	7/28/77	17	59	0.0	36.9	36.9	256.1
34	7/28/77	18	0	31.4	37.5	37.5	256.7
34	7/28/77	18	9	1.7	37.7	37.7	256.9
34	7/28/77	18	11	15.7	38.3	38.3	257.4
34	7/28/77	18	14	5.2	38.5	38.5	257.7
34	7/28/77	18	17	31.4	40.1	40.1	259.3
34	7/28/77	18	23	5.2	40.6	40.6	259.8
34	7/28/77	18	50	0.6	40.9	40.9	260.1
34	7/28/77	19	20	1.6	41.7	41.7	260.8
34	7/30/77			NO DATA	0.0	0.0	260.8
34	7/30/77			NO DATA	0.8	0.8	261.6
34	8/ 1/77	19	0	0.0	0.0	0.0	261.6
34	8/ 1/77	19	1	82.5	1.4	1.4	263.0
34	8/ 1/77	19	4	219.8	12.4	12.4	274.0
34	8/ 1/77	19	5	82.5	13.7	13.7	275.3
34	8/ 1/77	19	7	33.0	14.8	14.8	276.4
34	8/ 1/77	19	14	2.4	15.1	15.1	276.7
34	8/ 1/77	19	16	41.2	16.5	16.5	278.1

TABLE B1-10. CONTINUED

GAGE	DATE	HOUR	MIN	PRECIP INTENSITY MM/HR	ACCUMULATED STORM MM	PRECIPITATION DAY MM	PRECIPITATION YEAR MM
34	8/ 1/77	19	18	8.2	16.8	16.8	278.4
34	8/ 1/77	19	22	4.1	17.0	17.0	278.6
34	8/ 1/77	19	26	12.4	17.9	17.9	279.5
34	8/ 1/77	19	27	65.9	19.0	19.0	280.6
34	8/ 1/77	19	31	8.2	19.5	19.5	281.1
34	8/ 1/77	19	45	3.5	20.3	20.3	281.9
34	8/ 1/77	19	50	69.2	26.1	26.1	287.7
34	8/ 1/77	20	0	3.3	26.7	26.7	288.3
34	8/ 1/77	20	11	4.5	27.5	27.5	289.1
34	8/ 1/77	20	21	6.6	28.6	28.6	290.2
34	8/ 1/77	20	40	5.2	30.2	30.2	291.8
34	8/ 5/77	11	10	0.0	0.0	0.0	291.8
34	8/ 5/77	11	27	5.7	1.6	1.6	293.4
34	8/ 5/77	11	35	38.1	6.7	6.7	298.5
34	8/ 5/77	11	45	51.4	15.3	15.3	307.1
34	8/ 5/77	11	55	12.8	17.4	17.4	309.2
34	8/ 5/77	12	15	6.4	19.5	19.5	311.4
34	8/ 5/77	12	35	1.6	20.1	20.1	311.9
34	8/ 7/77	23	40	0.0	0.0	0.0	311.9
34	8/ 7/77	23	42	46.7	1.6	1.6	313.5
34	8/ 8/77	0	10	0.0	1.6	0.0	313.5
34	8/ 8/77	0	12	38.9	2.9	1.3	314.8
34	8/ 8/77	0	20	0.0	2.9	1.3	314.8
34	8/ 8/77	0	25	12.5	3.9	2.3	315.8
34	8/ 8/77	0	40	3.1	4.7	3.1	316.6
34	8/ 8/77	1	0	0.0	4.7	3.1	316.6
34	8/ 8/77	1	8	9.7	6.0	4.4	317.9
34	8/ 8/77	1	16	29.2	9.9	8.3	321.8
34	8/ 8/77	1	30	3.3	10.6	9.1	322.5
34	8/ 8/77	2	0	1.0	11.2	9.6	323.1
34	8/ 8/77	2	45	0.0	11.2	9.6	323.1
34	8/ 8/77	3	37	0.6	11.7	10.1	323.6
34	8/ 8/77	3	43	15.6	13.2	11.7	325.1
34	8/ 8/77	4	0	1.8	13.8	12.2	325.7
34	8/ 8/77	5	5	1.2	15.1	13.5	327.0
34	8/ 8/77	5	17	16.9	18.4	16.9	330.3
34	8/ 8/77	5	30	12.0	21.0	19.5	332.9
34	8/ 8/77	5	40	4.7	21.8	20.3	333.7
34	8/ 8/77	6	20	1.6	22.8	21.3	334.7
34	8/ 8/77	6	40	1.6	23.4	21.8	335.3
34	8/ 9/77	5	20	0.0	0.0	0.0	335.3
34	8/ 9/77	5	21	48.0	0.8	0.8	336.1
34	8/ 9/77	6	30	1.2	2.1	2.1	337.4
34	8/ 9/77	7	30	1.3	3.5	3.5	338.7
34	8/ 9/77	8	6	7.1	7.7	7.7	343.0
34	8/ 9/77	8	33	4.1	9.6	9.6	344.9
34	8/ 9/77	8	50	4.7	10.9	10.9	346.2
34	8/13/77			NO DATA	0.0	0.0	346.2
34	8/13/77			NO DATA	3.8	3.8	350.0
34	8/15/77	18	0	0.0	0.0	0.0	350.0
34	8/15/77	18	10	12.7	2.1	2.1	352.1
34	8/15/77	18	28	6.2	4.0	4.0	354.0
34	8/15/77	18	50	2.2	4.8	4.8	354.8
34	8/15/77	19	17	1.2	5.3	5.3	355.3
34	8/15/77	19	25	25.8	8.7	8.7	358.7
34	8/15/77	20	30	3.7	12.7	12.7	362.7
34	8/15/77	20	50	4.0	14.0	14.0	364.0
34	8/15/77	20	55	15.9	15.4	15.4	365.4
34	8/15/77	21	30	0.0	15.4	15.4	365.4
34	8/15/77	22	10	3.6	17.7	17.7	367.7
34	8/15/77	22	20	77.9	30.7	30.7	380.7
34	8/15/77	22	24	11.9	31.5	31.5	381.5
34	8/15/77	22	30	5.3	32.0	32.0	382.0
34	8/15/77	23	10	1.6	33.1	33.1	383.1
34	8/15/77	23	30	4.0	34.4	34.4	384.4
34	8/16/77	0	4	2.3	35.7	1.3	385.7
34	8/16/77	0	22	2.6	36.5	2.1	386.5
34	8/16/77	0	30	6.0	37.3	2.9	387.3
34	8/19/77			NO DATA	0.0	0.0	387.3
34	8/19/77			NO DATA	5.8	5.8	393.2
34	8/21/77			NO DATA	0.0	0.0	393.2
34	8/21/77			NO DATA	2.5	2.5	395.7
34	8/25/77	21	43	0.0	0.0	0.0	395.7
34	8/25/77	21	48	15.0	1.3	1.3	397.0
34	8/25/77	21	58	1.5	1.5	1.5	397.2
34	8/25/77	22	2	11.3	2.3	2.3	398.0
34	8/25/77	22	39	1.6	3.3	3.3	399.0
34	8/25/77	22	45	30.0	6.3	6.3	402.0
34	8/25/77	22	48	60.0	9.3	9.3	405.0
34	8/25/77	22	54	2.5	9.5	9.5	405.2
34	8/25/77	22	58	18.8	10.8	10.8	406.5
34	8/25/77	23	5	10.7	12.0	12.0	407.7
34	8/25/77	23	13	3.8	12.5	12.5	408.2
34	8/26/77	0	20	0.7	13.3	0.8	409.0
34	8/26/77	0	23	50.0	15.8	3.3	411.5
34	8/26/77	0	25	15.0	16.3	3.8	412.0
34	8/27/77	19	52	0.0	0.0	0.0	412.0
34	8/27/77	19	55	53.1	2.7	2.7	414.6
34	8/27/77	20	8	1.2	2.9	2.9	414.9
34	8/27/77	20	10	39.9	4.3	4.3	416.2
34	8/27/77	20	15	9.6	5.0	5.0	417.0
34	8/27/77	20	27	1.3	5.3	5.3	417.3
34	8/27/77	20	46	5.0	6.9	6.9	418.9
34	8/27/77	20	48	23.9	7.7	7.7	419.7
34	8/27/77	22	12	0.0	7.7	7.7	419.7

TABLE B1-10. CONTINUED

GAGE	DATE	HOUR	MIN	PRECIP INTENSITY MM/HR	ACCUMULATED STORM MM	PRECIPITATION DAY MM	PRECIPITATION YEAR MM
34	8/27/77	23	30	3.1	11.7	11.7	423.7
34	8/27/77	24	0	2.7	13.0	13.0	425.0
34	8/28/77	0	10	3.2	13.5	0.5	425.5
34	8/28/77	0	30	6.4	15.7	2.7	427.6
34	8/28/77	0	40	15.9	18.3	5.3	430.3
34	8/28/77	1	48	1.6	20.2	7.2	432.2
34	8/28/77	2	20	4.0	22.3	9.3	434.3
34	8/28/77	3	0	2.8	24.2	11.2	436.1
34	8/28/77	3	51	0.9	25.0	12.0	436.9
34	8/28/77	4	13	2.9	26.0	13.0	438.0
34	8/28/77	4	35	0.7	26.3	13.3	438.3
34	8/28/77	4	50	3.2	27.1	14.1	439.1
34	8/28/77	8	15	0.2	27.6	14.6	439.6
34	8/28/77	8	35	4.0	29.0	15.9	440.9
34	8/31/77	3	45	0.0	0.0	0.0	440.9
34	8/31/77	5	0	0.6	0.8	0.8	441.7
34	8/31/77	6	2	0.5	1.3	1.3	442.2
34	8/31/77	6	5	25.4	2.5	2.5	443.5
34	8/31/77	6	10	12.2	3.6	3.6	444.5
34	8/31/77	6	50	4.2	6.3	6.3	447.3
34	8/31/77	7	20	2.5	7.6	7.6	448.5
34	8/31/77	8	0	1.9	8.9	8.9	449.8
34	8/31/77	22	26	0.0	0.0	8.9	449.8
34	8/31/77	22	33	52.2	6.1	15.0	455.9
34	8/31/77	22	38	69.8	11.9	20.8	461.7
34	8/31/77	22	40	55.6	13.8	22.6	463.6
34	8/31/77	22	44	4.0	14.0	22.9	463.8
34	8/31/77	22	49	31.7	16.7	25.6	466.5
34	8/31/77	22	52	21.2	17.7	26.6	467.5
34	8/31/77	23	10	1.8	18.3	27.1	468.1
34	8/31/77	23	20	4.8	19.0	27.9	468.9
34	9/ 3/77	12	40	0.0	0.0	0.0	468.9
34	9/ 3/77	12	49	4.0	0.6	0.6	469.5
34	9/ 3/77	13	0	4.9	1.5	1.5	470.4
34	9/ 3/77	13	10	3.6	2.1	2.1	471.0
34	9/ 3/77	13	25	2.4	2.7	2.7	471.6
34	9/ 3/77	13	30	3.6	3.0	3.0	471.9
34	9/ 3/77	13	40	7.2	4.2	4.2	473.1
34	9/ 3/77	13	56	9.0	6.6	6.6	475.5
34	9/ 7/77			NO DATA	0.0	0.0	475.5
34	9/ 7/77			NO DATA	1.3	1.3	476.7
34	9/ 9/77			NO DATA	0.0	0.0	476.7
34	9/ 9/77			NO DATA	3.0	3.0	479.8
34	9/12/77			NO DATA	0.0	0.0	479.8
34	9/12/77			NO DATA	1.3	1.3	481.0
34	9/15/77			NO DATA	0.0	0.0	481.0
34	9/15/77			NO DATA	3.6	3.6	484.6
34	9/17/77	5	20	0.0	0.0	0.0	484.6
34	9/17/77	5	30	1.5	0.3	0.3	484.9
34	9/17/77	6	45	4.9	6.3	6.3	491.0
34	9/17/77	19	20	0.0	0.0	6.3	491.0
34	9/17/77	19	23	101.6	5.1	11.4	496.0
34	9/17/77	19	28	48.8	9.1	15.5	500.1
34	9/17/77	19	31	10.2	9.7	16.0	500.6
34	9/17/77	19	42	51.3	19.0	25.4	510.0
34	9/17/77	19	54	22.9	23.6	30.0	514.6
34	9/17/77	20	2	99.1	36.8	43.2	527.8
34	9/17/77	21	35	0.0	36.8	43.2	527.8
34	9/17/77	21	40	30.5	39.4	45.7	530.3
34	9/17/77	21	49	0.0	39.4	45.7	530.3
34	9/17/77	21	51	38.1	40.6	47.0	531.6
34	9/17/77	22	2	0.0	40.6	47.0	531.6
34	9/17/77	22	9	41.4	45.5	51.8	536.4
34	9/17/77	22	15	7.6	46.2	52.6	537.2
34	9/17/77	22	22	10.9	47.5	53.8	538.5
34	9/17/77	22	51	0.0	47.5	53.8	538.5
34	9/17/77	22	54	40.6	49.5	55.9	540.5
34	9/17/77	24	0	0.0	49.5	55.9	540.5
34	9/18/77	4	10	0.0	0.0	0.0	540.5
34	9/18/77	4	44	1.0	0.6	0.6	541.1
34	9/18/77	4	51	7.4	1.4	1.4	541.9
34	9/18/77	5	10	0.0	1.4	1.4	541.9
34	9/18/77	5	19	17.3	4.0	4.0	544.5
34	9/18/77	5	50	5.6	6.9	6.9	547.4
34	9/18/77	6	2	15.8	10.1	10.1	550.6
34	9/18/77	7	8	0.3	10.4	10.4	550.8
34	9/18/77	7	15	22.2	13.0	13.0	553.4
34	9/23/77	7	55	0.9	0.0	0.0	553.4
34	9/23/77	8	50	1.4	1.3	1.3	554.7
34	9/23/77	9	30	1.6	2.4	2.4	555.8
34	9/23/77	9	50	1.6	2.9	2.9	556.3
34	9/23/77	10	20	3.7	4.7	4.7	558.1
34	9/23/77	12	0	1.9	7.8	7.8	561.3
34	9/23/77	15	26	0.0	7.8	7.8	561.3
34	9/23/77	15	33	11.2	9.1	9.1	562.6
34	9/23/77	16	0	2.9	10.5	10.5	563.9
34	9/23/77	21	16	0.0	10.5	10.5	563.9
34	9/23/77	21	23	33.6	14.4	14.4	567.8
34	9/23/77	21	49	0.0	14.4	14.4	567.8
34	9/23/77	22	0	21.4	18.3	18.3	571.7
34	9/30/77	1	35	0.0	0.0	0.0	571.7
34	9/30/77	1	47	7.8	1.6	1.6	573.3

TABLE B1-10. CONTINUED

GAGE	DATE	HOUR	MIN	PRECIP INTENSITY MM/HR	ACCUMULATED STORM MM	PRECIPITATION DAY MM	PRECIPITATION YEAR MM
34	9/30/77	1	53	28.6	4.4	4.4	576.1
34	9/30/77	1	56	41.6	6.5	6.5	578.2
34	9/30/77	2	0	15.6	7.5	7.5	579.3
34	9/30/77	2	11	5.7	8.6	8.6	580.3
34	9/30/77	2	22	8.5	10.1	10.1	581.9
34	9/30/77	2	32	1.6	10.4	10.4	582.1
34	9/30/77	2	42	6.2	11.4	11.4	583.2
34	9/30/77	17	12	0.0	0.0	11.4	583.2
34	9/30/77	17	30	2.6	0.8	12.2	583.9
34	9/30/77	17	42	5.2	1.8	13.2	585.0
34	9/30/77	17	53	7.1	3.1	14.5	586.3
34	9/30/77	18	6	3.6	3.9	15.3	587.1
34	9/30/77	19	32	0.0	3.9	15.3	587.1
34	9/30/77	19	37	46.8	7.8	19.2	590.9
34	9/30/77	19	39	39.0	9.1	20.5	592.2
34	9/30/77	20	0	5.9	11.2	22.6	594.3
34	10/ 7/77	7	25	0.0	0.0	0.0	594.3
34	10/ 7/77	8	5	0.4	0.3	0.3	594.6
34	10/ 7/77	8	33	0.6	0.5	0.5	594.8
34	10/ 7/77	9	0	0.6	0.8	0.8	595.1
34	10/ 7/77	9	19	1.6	1.3	1.3	595.6
34	10/ 7/77	9	37	2.6	2.1	2.1	596.4
34	10/ 7/77	9	51	1.1	2.3	2.3	596.7
34	10/ 7/77	9	56	3.1	2.6	2.6	596.9
34	10/ 7/77	10	2	0.0	2.6	2.6	596.9
34	10/ 7/77	10	43	3.4	4.9	4.9	599.2
34	10/ 7/77	10	53	1.6	5.2	5.2	599.5
34	10/ 7/77	11	20	2.9	6.5	6.5	600.8
34	10/ 7/77	11	36	1.9	7.0	7.0	601.3
34	10/ 7/77	12	2	2.4	8.0	8.0	602.4
34	10/ 7/77	12	20	2.6	8.8	8.8	603.1
34	10/ 7/77	12	30	3.1	9.3	9.3	603.6
34	10/ 7/77	12	39	3.5	9.8	9.8	604.2
34	10/ 7/77	12	48	5.2	10.6	10.6	604.9
34	10/ 7/77	13	2	3.3	11.4	11.4	605.7
34	10/ 7/77	13	5	5.2	11.6	11.6	606.0
34	10/ 7/77	13	8	5.2	11.9	11.9	606.2
34	10/ 7/77	13	15	6.7	12.7	12.7	607.0
34	10/ 7/77	13	25	1.6	12.9	12.9	607.3
34	10/ 7/77	13	31	7.8	13.7	13.7	608.0
34	10/ 7/77	13	37	2.6	14.0	14.0	608.3
34	10/ 7/77	13	45	1.9	14.2	14.2	608.6
34	10/ 7/77	13	51	2.6	14.5	14.5	608.8
34	10/ 7/77	13	55	3.9	14.8	14.8	609.1
34	10/ 7/77	13	59	3.9	15.0	15.0	609.3
34	10/ 7/77	14	25	0.6	15.3	15.3	609.6
34	10/ 7/77	14	35	1.6	15.5	15.5	609.9
34	10/ 7/77	14	42	2.2	15.8	15.8	610.1
34	10/ 7/77	14	45	10.4	16.3	16.3	610.6
34	10/ 7/77	14	55	3.1	16.8	16.8	611.1
34	10/ 7/77	15	5	9.3	18.4	18.4	612.7
34	10/ 7/77	15	12	2.2	18.6	18.6	613.0
34	10/ 7/77	15	15	10.4	19.2	19.2	613.5
34	10/ 7/77	15	25	7.8	20.4	20.4	614.8
34	10/ 7/77	15	35	6.2	21.5	21.5	615.8
34	10/ 7/77	15	41	5.2	22.0	22.0	616.3
34	10/ 7/77	15	55	4.4	23.0	23.0	617.4
34	10/ 7/77	15	58	5.2	23.3	23.3	617.6
34	10/ 7/77	16	8	4.7	24.1	24.1	618.4
34	10/ 7/77	16	12	11.6	24.8	24.8	619.2
34	10/ 7/77	16	17	6.2	25.4	25.4	619.7
34	10/ 7/77	19	5	0.6	27.2	27.2	621.5
34	10/10/77	14	35	0.0	0.0	0.0	621.5
34	10/10/77	14	45	1.7	0.3	0.3	621.8
34	10/10/77	14	55	3.5	0.9	0.9	622.4
34	10/10/77	15	5	1.7	1.2	1.2	622.7
34	10/10/77	15	9	8.7	1.7	1.7	623.2
34	10/10/77	15	17	2.2	2.0	2.0	623.5
34	10/10/77	15	18	34.8	2.6	2.6	624.1
34	10/10/77	15	41	6.8	5.2	5.2	626.7
34	10/10/77	16	0	2.8	6.1	6.1	627.6
34	10/21/77	23	0	0.0	0.0	0.0	627.6
34	10/21/77	23	18	3.6	1.1	1.1	628.7
34	10/21/77	23	31	2.5	1.6	1.6	629.2
34	10/21/77	23	43	2.7	2.2	2.2	629.8
34	10/21/77	23	48	3.3	2.5	2.5	630.1
34	10/21/77	24	0	5.5	3.5	3.5	631.1
34	10/22/77	0	9	5.5	4.4	0.8	632.0
34	10/22/77	0	21	4.1	5.2	1.6	632.8
34	10/22/77	0	40	3.4	6.3	2.7	633.9
34	10/22/77	0	55	2.2	6.8	3.3	634.4
34	10/22/77	1	35	0.4	7.1	3.5	634.7
34	10/22/77	2	5	0.5	7.4	3.8	635.0
34	10/22/77			NO DATA	0.0	3.8	635.0
34	10/22/77			NO DATA	5.1	8.9	640.0
34	10/23/77	1	30	0.0	0.0	0.0	640.0
34	10/23/77	1	35	3.2	0.3	0.3	640.3
34	10/23/77	1	55	0.8	0.5	0.5	640.6
34	10/23/77	2	15	3.2	1.6	1.6	641.6
34	10/23/77	2	25	3.2	2.1	2.1	642.2
34	10/23/77	2	33	2.0	2.4	2.4	642.5
34	10/23/77	2	45	2.7	3.0	3.0	643.0
34	10/23/77	2	55	3.2	3.5	3.5	643.5
34	10/23/77	5	55	0.1	3.8	3.8	643.8
34	10/23/77	6	1	2.7	4.0	4.0	644.1
34	10/23/77	6	18	0.9	4.3	4.3	644.3
34	10/23/77	6	27	1.8	4.6	4.6	644.6
34	10/23/77	6	37	8.0	5.9	5.9	645.9

TABLE B1-10. CONCLUDED

GAGE	DATE	HOUR	MIN	PRECIP INTENSITY MM/HR	ACCUMULATED STORM MM	PRECIPITATION DAY MM	PRECIPITATION YEAR MM
34	10/23/77	6	40	5.4	6.2	6.2	646.2
34	10/23/77	6	49	7.2	7.2	7.2	647.3
34	10/23/77	6	56	2.3	7.5	7.5	647.5
34	10/23/77	7	20	1.3	8.0	8.0	648.1
34	10/23/77	8	8	0.0	8.0	8.0	648.1
34	10/23/77	8	20	2.7	8.6	8.6	648.6
34	10/23/77	8	41	0.8	8.9	8.9	648.9
34	10/23/77	8	48	4.6	9.4	9.4	649.4
34	10/23/77	8	58	1.6	9.7	9.7	649.7
34	10/23/77	9	0	32.2	10.7	10.7	650.8
34	10/23/77	9	8	8.0	11.8	11.8	651.8
34	10/23/77	9	9	32.2	12.3	12.3	652.4
34	10/23/77	9	38	4.4	14.5	14.5	654.5
34	10/23/77	9	45	4.6	15.0	15.0	655.1
34	10/23/77	10	15	0.5	15.3	15.3	655.3
34	10/23/77	11	25	0.2	15.6	15.6	655.6
34	10/23/77	12	11	0.3	15.8	15.8	655.9
34	10/23/77	12	17	5.4	16.4	16.4	656.4
34	10/23/77	12	59	0.8	16.9	16.9	656.9
34	10/23/77	13	7	2.0	17.2	17.2	657.2
34	10/23/77	13	21	2.3	17.7	17.7	657.7
34	10/23/77	13	27	2.7	18.0	18.0	658.0
34	10/23/77	13	45	1.8	18.5	18.5	658.5
34	10/23/77	14	10	1.3	19.0	19.0	659.1
34	10/23/77	14	21	1.5	19.3	19.3	659.3
34	10/23/77	14	31	8.0	20.7	20.7	660.7
34	10/23/77	14	38	2.3	20.9	20.9	661.0
34	10/23/77	14	45	2.3	21.2	21.2	661.2
34	10/23/77	15	8	1.4	21.7	21.7	661.8
34	10/23/77	15	11	10.7	22.3	22.3	662.3
34	10/23/77	15	15	8.0	22.8	22.8	662.8
34	10/23/77	15	21	2.7	23.1	23.1	663.1
34	10/23/77	15	41	2.4	23.9	23.9	663.9
34	10/23/77	15	55	2.3	24.4	24.4	664.4
34	10/23/77	16	39	0.7	24.9	24.9	665.0
34	10/23/77	17	30	0.6	25.5	25.5	665.5
34	10/23/77	17	35	3.2	25.8	25.8	665.8
34	10/23/77	17	48	6.2	27.1	27.1	667.1
34	10/23/77	17	56	2.0	27.4	27.4	667.4
34	10/23/77	18	15	1.7	27.9	27.9	667.9
34	10/23/77	18	24	1.8	28.2	28.2	668.2
34	10/23/77	19	10	0.7	28.7	28.7	668.7
34	10/24/77	4	15	0.0	0.0	0.0	668.7
34	10/24/77	4	17	7.1	0.2	0.2	669.0
34	10/24/77	4	30	0.0	0.2	0.2	669.0
34	10/24/77	4	36	7.1	0.9	0.9	669.7
34	10/24/77	5	11	0.0	0.9	0.9	669.7
34	10/24/77	5	19	1.8	1.2	1.2	669.9
34	10/24/77	5	24	11.3	2.1	2.1	670.9
34	10/24/77	5	32	1.8	2.4	2.4	671.1
34	10/24/77	5	39	2.0	2.6	2.6	671.3
34	10/24/77	5	49	2.8	3.1	3.1	671.8
34	10/24/77	6	1	1.2	3.3	3.3	672.0
34	10/24/77	6	39	0.7	3.8	3.8	672.5
34	10/24/77	6	49	1.4	4.0	4.0	672.7
34	10/24/77	6	56	0.0	4.0	4.0	672.7
34	10/24/77	7	12	2.7	4.7	4.7	673.5
34	10/24/77	7	21	4.7	5.4	5.4	674.2
34	10/24/77	7	40	2.2	6.1	6.1	674.9
34	10/30/77	21	35	0.0	0.0	0.0	674.9
34	10/30/77	21	39	4.4	0.3	0.3	675.2
34	10/30/77	22	4	0.7	0.6	0.6	675.5
34	10/30/77	22	9	3.5	0.9	0.9	675.7
34	10/30/77	22	22	1.4	1.2	1.2	676.0
34	10/30/77	22	27	3.5	1.5	1.5	676.3
34	10/31/77	0	24	0.5	2.4	0.9	677.2
34	10/31/77	0	51	0.7	2.6	1.2	677.5
34	10/31/77	1	23	1.1	3.2	1.8	678.1
34	10/31/77	1	31	2.2	3.5	2.1	678.4
34	10/31/77	1	45	2.5	4.1	2.6	679.0
34	10/31/77	1	48	5.9	4.4	2.9	679.3
34	10/31/77	2	5	3.1	5.3	3.8	680.2
34	10/31/77	2	36	2.3	6.5	5.0	681.3
34	10/31/77	2	39	17.7	7.4	5.9	682.2
34	10/31/77	3	9	1.2	7.9	6.5	682.8
34	10/31/77	3	11	8.8	8.2	6.8	683.1
34	10/31/77	3	28	4.2	9.4	7.9	684.3
34	10/31/77	3	40	2.9	10.0	8.5	684.9
34	10/31/77	3	44	4.4	10.3	8.8	685.2
34	10/31/77	3	51	2.5	10.6	9.1	685.5
34	10/31/77	3	55	4.4	10.9	9.4	685.8
34	10/31/77	4	0	3.5	11.2	9.7	686.0
34	10/31/77	4	55	1.9	13.0	11.5	687.8
34	11/ 1/77			NO DATA	0.0	0.0	687.8
34	11/ 1/77			NO DATA	1.0	1.0	688.8
34	11/ 1/77			NO DATA	0.0	1.0	688.8
34	11/ 1/77			NO DATA	1.3	2.3	690.1
34	11/ 3/77			NO DATA	0.0	0.0	690.1
34	11/ 3/77			NO DATA	2.0	2.0	692.1
34	11/ 9/77			NO DATA	0.0	0.0	692.1
34	11/ 9/77			NO DATA	1.3	1.3	693.4
34	11/20/77			NO DATA	0.0	0.0	693.4
34	11/20/77			NO DATA	2.5	2.5	695.9

TABLE B1-11. FOUR MILE CREEK WATERSHED PRECIPITATION DATA FOR 1977 GAGE 35

GAGE	DATE	HOUR	MIN	PRECIP INTENSITY MM/HR	ACCUMULATED STORM MM	PRECIPITATION DAY MM	PRECIPITATION YEAR MM
35	4/ 1/77	16	0	0.0	0.0	0.0	0.0
35	4/ 1/77	17	0	0.7	0.7	0.7	0.7
35	4/ 1/77	17	50	0.3	1.0	1.0	1.0
35	4/ 1/77	18	10	0.7	1.2	1.2	1.2
35	4/ 1/77	18	30	0.0	1.2	1.2	1.2
35	4/ 1/77	18	40	3.0	1.7	1.7	1.7
35	4/ 1/77	18	55	3.0	2.5	2.5	2.5
35	4/ 1/77	20	8	0.4	3.0	3.0	3.0
35	4/ 1/77	20	18	7.5	4.2	4.2	4.2
35	4/ 1/77	20	24	5.0	4.7	4.7	4.7
35	4/ 1/77	20	28	7.5	5.2	5.2	5.2
35	4/ 1/77	20	33	3.0	5.5	5.5	5.5
35	4/ 1/77	20	43	4.5	6.2	6.2	6.2
35	4/ 1/77	21	4	1.4	6.7	6.7	6.7
35	4/ 1/77	21	10	7.5	7.5	7.5	7.5
35	4/ 1/77	21	30	7.5	10.0	10.0	10.0
35	4/ 2/77	0	35	0.0	10.0	0.0	10.0
35	4/ 2/77	0	55	3.7	11.2	1.2	11.2
35	4/ 2/77	1	50	0.0	11.2	1.2	11.2
35	4/ 2/77	2	0	1.5	11.5	1.5	11.5
35	4/ 2/77	2	7	2.1	11.7	1.7	11.7
35	4/ 2/77	2	22	0.0	11.7	1.7	11.7
35	4/ 2/77	2	33	5.4	12.7	2.7	12.7
35	4/ 3/77	19	40	0.0	0.0	0.0	12.7
35	4/ 3/77	20	0	1.4	0.5	0.5	13.2
35	4/ 3/77	20	45	1.9	1.9	1.9	14.6
35	4/ 3/77	20	57	2.4	2.4	2.4	15.1
35	4/ 3/77	21	30	0.9	2.8	2.8	15.5
35	4/ 3/77	21	50	1.4	3.3	3.3	16.0
35	4/ 3/77	22	3	2.2	3.8	3.8	16.5
35	4/ 3/77	22	30	1.1	4.3	4.3	17.0
35	4/ 3/77	22	42	1.2	4.5	4.5	17.2
35	4/ 3/77	22	52	2.8	5.0	5.0	17.7
35	4/ 3/77	23	4	1.2	5.2	5.2	17.9
35	4/ 3/77	23	40	0.4	5.4	5.4	18.1
35	4/ 4/77	2	30	0.2	5.9	0.5	18.6
35	4/ 4/77	2	46	0.9	6.1	0.7	18.8
35	4/ 4/77	3	20	1.7	7.1	1.7	19.8
35	4/ 4/77	4	2	1.7	8.3	2.8	21.0
35	4/ 4/77	4	35	1.3	9.0	3.5	21.7
35	4/ 4/77	6	15	0.4	9.7	4.3	22.4
35	4/ 4/77	7	10	0.5	10.2	4.7	22.9
35	4/ 4/77			NO DATA	0.0	4.7	22.9
35	4/ 4/77			NO DATA	5.1	9.8	27.9
35	4/ 5/77			NO DATA	0.0	0.0	27.9
35	4/ 5/77			NO DATA	2.5	2.5	30.5
35	4/14/77			NO DATA	0.0	0.0	30.5
35	4/14/77			NO DATA	7.6	7.6	38.1
35	4/17/77			NO DATA	0.0	0.0	38.1
35	4/17/77			NO DATA	1.3	1.3	39.4
35	4/19/77	17	0	0.0	0.0	0.0	39.4
35	4/19/77	17	3	5.6	0.3	0.3	39.6
35	4/19/77	17	6	5.6	0.6	0.6	39.9
35	4/19/77	17	7	33.3	1.1	1.1	40.5
35	4/19/77	17	14	7.1	1.9	1.9	41.3
35	4/19/77	17	15	50.0	2.8	2.8	42.1
35	4/19/77	17	17	8.3	3.1	3.1	42.4
35	4/19/77	17	23	36.1	6.7	6.7	46.0
35	4/19/77	17	32	9.3	8.1	8.1	47.4
35	4/19/77	17	44	4.2	8.9	8.9	48.3
35	4/20/77	18	30	0.0	0.0	0.0	48.3
35	4/20/77	18	35	3.1	0.3	0.3	48.5
35	4/20/77	18	42	4.5	0.8	0.8	49.0
35	4/20/77	19	44	0.0	0.8	0.8	49.0
35	4/20/77	20	30	0.3	1.0	1.0	49.3
35	4/20/77	20	33	5.2	1.3	1.3	49.6
35	4/20/77	20	35	23.6	2.1	2.1	50.4
35	4/20/77	20	38	15.7	2.9	2.9	51.1
35	4/20/77	20	40	7.9	3.1	3.1	51.4
35	4/20/77	20	41	15.7	3.4	3.4	51.7
35	4/20/77	20	52	5.7	4.5	4.5	52.7
35	4/20/77	20	54	15.7	5.0	5.0	53.2
35	4/20/77	21	22	0.6	5.2	5.2	53.5
35	4/20/77	21	35	2.4	5.8	5.8	54.0
35	4/20/77	21	36	15.7	6.0	6.0	54.3
35	4/20/77	21	41	3.1	6.3	6.3	54.6
35	4/20/77	21	44	5.2	6.6	6.6	54.8
35	4/20/77	23	42	0.3	7.1	7.1	55.3
35	4/21/77	0	5	1.4	7.6	0.5	55.9
35	4/21/77	0	17	5.2	8.7	1.6	56.9
35	4/21/77	0	24	0.0	8.7	1.6	56.9
35	4/21/77	0	32	2.0	8.9	1.8	57.2
35	4/21/77	0	35	5.2	9.2	2.1	57.4
35	4/21/77	1	3	5.6	11.8	4.7	60.1
35	4/21/77	1	23	3.9	13.1	6.0	61.4
35	4/21/77	2	4	1.5	14.2	7.1	62.4
35	4/21/77	3	55	0.6	15.2	8.1	63.5
35	4/21/77	5	25	0.2	15.5	8.4	63.7
35	4/21/77	6	12	0.3	15.7	8.7	64.0
35	4/21/77	7	4	0.6	16.3	9.2	64.5
35	4/28/77			NO DATA	0.0	0.0	64.5
35	4/28/77			NO DATA	5.3	5.3	69.8
35	5/ 3/77	17	30	0.0	0.0	0.0	69.8
35	5/ 3/77	17	50	0.8	0.3	0.3	70.1
35	5/ 3/77	20	0	0.0	0.3	0.3	70.1
35	5/ 3/77	20	30	0.5	0.5	0.5	70.4

TABLE B1-11. CONTINUED

GAGE	DATE	HOUR	MIN	PRECIP INTENSITY MM/HR	ACCUMULATED STORM MM	PRECIPITATION DAY MM	PRECIPITATION YEAR MM
35	5/ 3/77	20	43	1.3	0.8	0.8	70.7
35	5/ 3/77	21	22	0.0	0.8	0.8	70.7
35	5/ 3/77	21	34	1.4	1.1	1.1	70.9
35	5/ 3/77	21	44	3.3	1.6	1.6	71.5
35	5/ 3/77	21	52	2.0	1.9	1.9	71.7
35	5/ 3/77	22	48	0.0	1.9	1.9	71.7
35	5/ 3/77	22	53	3.3	2.2	2.2	72.0
35	5/ 4/77	7	57	0.0	2.2	0.0	72.0
35	5/ 4/77	7	59	8.1	2.4	0.3	72.3
35	5/ 4/77	8	54	0.0	2.4	0.3	72.3
35	5/ 4/77	9	0	2.7	2.7	0.5	72.6
35	5/ 4/77	9	40	0.8	3.3	1.1	73.1
35	5/ 4/77	9	45	48.8	7.3	5.1	77.2
35	5/ 4/77	9	47	40.6	8.7	6.5	78.5
35	5/ 4/77	9	55	10.2	10.0	7.9	79.9
35	5/ 4/77	16	24	0.0	10.0	7.9	79.9
35	5/ 4/77	16	32	6.1	10.8	8.7	80.7
35	5/ 4/77	16	36	20.3	12.2	10.0	82.0
35	5/ 4/77	16	40	4.1	12.5	10.3	82.3
35	5/ 4/77	16	41	16.3	12.7	10.6	82.6
35	5/ 4/77	16	46	3.3	13.0	10.8	82.9
35	5/ 4/77	16	48	65.0	15.2	13.0	85.0
35	5/ 4/77	17	43	0.6	15.7	13.5	85.6
35	5/ 4/77	17	50	7.0	16.5	14.4	86.4
35	5/ 4/77	17	52	16.3	17.1	14.9	86.9
35	5/ 4/77	18	40	0.3	17.3	15.2	87.2
35	5/ 4/77	22	15	0.0	17.3	15.2	87.2
35	5/ 4/77	22	19	12.2	18.2	16.0	88.0
35	5/ 4/77	22	40	0.8	18.4	16.3	88.3
35	5/ 4/77	23	10	3.8	20.3	18.2	90.2
35	5/15/77			NO DATA	0.0	0.0	90.2
35	5/15/77			NO DATA	2.3	2.3	92.5
35	5/16/77			NO DATA	0.0	0.0	92.5
35	5/16/77			NO DATA	3.6	3.6	96.0
35	5/17/77			NO DATA	0.0	0.0	96.0
35	5/17/77			NO DATA	1.0	1.0	97.0
35	5/20/77			NO DATA	0.0	0.0	97.0
35	5/20/77			NO DATA	1.0	1.0	98.0
35	5/21/77	13	9	0.0	0.0	0.0	98.0
35	5/21/77	13	11	76.2	2.5	2.5	100.6
35	5/21/77	13	13	61.0	4.6	4.6	102.6
35	5/21/77	13	15	15.2	5.1	5.1	103.1
35	5/21/77	13	40	0.6	5.3	5.3	103.4
35	5/21/77	16	55	0.0	5.3	5.3	103.4
35	5/21/77	16	57	15.2	5.8	5.8	103.9
35	5/21/77	17	42	0.3	6.1	6.1	104.1
35	5/21/77	17	50	5.7	6.9	6.9	104.9
35	5/21/77	17	58	3.8	7.4	7.4	105.4
35	5/21/77	18	25	3.4	8.9	8.9	106.9
35	5/26/77			NO DATA	0.0	0.0	106.9
35	5/26/77			NO DATA	2.8	2.8	109.7
35	6/ 8/77			NO DATA	0.0	0.0	109.7
35	6/ 8/77			NO DATA	5.1	5.1	114.8
35	6/11/77			NO DATA	0.0	0.0	114.8
35	6/11/77			NO DATA	1.3	1.3	116.1
35	6/17/77	13	50	0.0	0.0	0.0	116.1
35	6/17/77	13	53	26.3	1.3	1.3	117.4
35	6/17/77	13	56	26.3	2.6	2.6	118.7
35	6/17/77	13	58	70.9	5.0	5.0	121.1
35	6/17/77	14	0	204.9	11.8	11.8	127.9
35	6/17/77	14	4	31.5	13.9	13.9	130.0
35	6/17/77	14	8	82.8	19.4	19.4	135.5
35	6/17/77	14	10	7.9	19.7	19.7	135.8
35	6/17/77	14	11	78.8	21.0	21.0	137.1
35	6/17/77	14	13	7.9	21.3	21.3	137.4
35	6/17/77	14	40	0.6	21.5	21.5	137.6
35	6/17/77	14	52	3.9	22.3	22.3	138.4
35	6/17/77	14	54	15.8	22.9	22.9	138.9
35	6/23/77	9	4	0.0	0.0	0.0	138.9
35	6/23/77	9	6	17.0	0.6	0.6	139.5
35	6/23/77	9	10	46.7	3.7	3.7	142.6
35	6/23/77	9	12	17.0	4.2	4.2	143.2
35	6/23/77	9	14	50.9	5.9	5.9	144.9
35	6/23/77	9	39	6.1	8.5	8.5	147.4
35	6/23/77	9	48	5.7	9.3	9.3	148.3
35	6/23/77	10	20	1.1	9.9	9.9	148.8
35	6/24/77			NO DATA	0.0	0.0	148.8
35	6/24/77			NO DATA	3.6	3.6	152.4
35	6/30/77			NO DATA	0.0	0.0	152.4
35	6/30/77			NO DATA	2.5	2.5	154.9
35	7/ 3/77	5	18	0.0	0.0	0.0	154.9
35	7/ 3/77	5	20	57.1	1.9	1.9	156.8
35	7/ 3/77	5	26	13.6	3.3	3.3	158.2
35	7/ 3/77	5	37	1.5	3.5	3.5	158.5
35	7/ 3/77	5	39	8.2	3.8	3.8	158.7
35	7/ 3/77	5	45	2.7	4.1	4.1	159.0
35	7/ 3/77	6	13	1.2	4.6	4.6	159.6
35	7/ 3/77	6	15	8.2	4.9	4.9	159.8
35	7/ 3/77	6	16	32.7	5.4	5.4	160.4
35	7/ 3/77	6	19	10.9	6.0	6.0	160.9
35	7/ 3/77	6	20	81.6	7.3	7.3	162.3

TABLE B1-11. CONTINUED

GAGE	DATE	HOUR	MIN	PRECIP INTENSITY MM/HR	ACCUMULATED STORM MM	PRECIPITATION DAY MM	PRECIPITATION YEAR MM
35	7/ 3/77	6	22	24.5	8.2	8.2	163.1
35	7/ 3/77	6	26	20.4	9.5	9.5	164.5
35	7/ 3/77	6	36	11.4	11.4	11.4	166.4
35	7/ 6/77			NO DATA	0.0	0.0	166.4
35	7/ 6/77			NO DATA	31.2	31.2	197.6
35	7/11/77			NO DATA	0.0	0.0	197.6
35	7/11/77			NO DATA	0.5	0.5	198.1
35	7/15/77	19	30	0.0	0.0	0.0	198.1
35	7/15/77	19	36	28.9	2.9	2.9	201.0
35	7/15/77	19	40	47.3	6.0	6.0	204.2
35	7/15/77	19	45	53.6	10.5	10.5	208.6
35	7/15/77	20	0	8.4	12.6	12.6	210.7
35	7/15/77	20	20	2.4	13.4	13.4	211.5
35	7/15/77	20	33	3.6	14.2	14.2	212.3
35	7/15/77	20	44	1.4	14.5	14.5	212.6
35	7/15/77	20	50	5.3	15.0	15.0	213.1
35	7/15/77	21	0	1.6	15.2	15.2	213.4
35	7/17/77			NO DATA	0.0	0.0	213.4
35	7/17/77			NO DATA	7.1	7.1	220.5
35	7/18/77			NO DATA	0.0	0.0	220.5
35	7/18/77			NO DATA	12.2	12.2	232.7
35	7/21/77			NO DATA	0.0	0.0	232.7
35	7/21/77			NO DATA	4.3	4.3	237.0
35	7/24/77			NO DATA	0.0	0.0	237.0
35	7/24/77			NO DATA	1.3	1.3	238.2
35	7/28/77	16	35	0.0	0.0	0.0	238.2
35	7/28/77	16	39	16.1	1.1	1.1	239.3
35	7/28/77	16	42	5.4	1.3	1.3	239.6
35	7/28/77	16	47	32.3	4.0	4.0	242.3
35	7/28/77	16	49	48.4	5.7	5.7	243.9
35	7/28/77	16	53	16.1	6.7	6.7	245.0
35	7/28/77	16	55	48.5	8.3	8.3	246.6
35	7/28/77	16	58	43.1	10.5	10.5	248.7
35	7/28/77	17	4	5.4	11.0	11.0	249.3
35	7/28/77	17	6	32.3	12.1	12.1	250.4
35	7/28/77	17	8	40.4	13.5	13.5	251.7
35	7/28/77	17	12	40.4	16.1	16.1	254.4
35	7/28/77	17	21	1.8	16.4	16.4	254.7
35	7/28/77	17	34	2.5	17.0	17.0	255.2
35	7/28/77	17	40	64.6	23.4	23.4	261.7
35	7/28/77	17	45	29.1	25.8	25.8	264.1
35	7/28/77	17	49	96.9	32.3	32.3	270.5
35	7/28/77	17	52	107.7	37.7	37.7	275.9
35	7/28/77	17	58	2.7	37.9	37.9	276.2
35	7/28/77	18	1	5.4	38.2	38.2	276.5
35	7/28/77	18	12	2.9	38.8	38.8	277.0
35	7/28/77	18	20	2.0	39.0	39.0	277.3
35	7/28/77	18	30	8.1	40.4	40.4	278.6
35	7/28/77	18	40	1.6	40.6	40.6	278.9
35	7/30/77			NO DATA	0.0	0.0	278.9
35	7/30/77			NO DATA	1.3	1.3	280.2
35	8/ 1/77	19	5	0.0	0.0	0.0	280.2
35	8/ 1/77	19	7	140.8	4.7	4.7	284.8
35	8/ 1/77	19	10	16.6	5.5	5.5	285.7
35	8/ 1/77	19	15	33.1	8.3	8.3	288.4
35	8/ 1/77	19	18	27.6	9.7	9.7	289.8
35	8/ 1/77	19	23	3.3	9.9	9.9	290.1
35	8/ 1/77	19	25	33.1	11.0	11.0	291.2
35	8/ 1/77	19	30	6.6	11.6	11.6	291.7
35	8/ 1/77	19	31	49.7	12.4	12.4	292.6
35	8/ 1/77	19	51	4.1	13.8	13.8	294.0
35	8/ 1/77	19	56	19.9	15.5	15.5	295.6
35	8/ 1/77	20	36	3.7	17.9	17.9	298.1
35	8/ 1/77	20	45	7.4	19.0	19.0	299.2
35	8/ 5/77	11	0	0.0	0.0	0.0	299.2
35	8/ 5/77	11	30	4.6	2.3	2.3	301.5
35	8/ 5/77	11	34	11.4	3.0	3.0	302.3
35	8/ 5/77	11	37	20.3	4.1	4.1	303.3
35	8/ 5/77	11	40	66.0	7.4	7.4	306.6
35	8/ 5/77	11	46	17.8	9.1	9.1	308.3
35	8/ 5/77	11	49	10.2	9.7	9.7	308.9
35	8/ 5/77	11	58	13.5	11.7	11.7	310.9
35	8/ 5/77	12	17	7.2	14.0	14.0	313.2
35	8/ 5/77	12	23	5.1	14.5	14.5	313.7
35	8/ 5/77	12	35	3.8	15.2	15.2	314.4
35	8/ 7/77	23	35	0.0	0.0	0.0	314.4
35	8/ 7/77	23	38	10.6	0.5	0.5	315.0
35	8/ 7/77	23	43	3.2	0.8	0.8	315.2
35	8/ 7/77	23	46	79.5	4.8	4.8	319.2
35	8/ 7/77	23	57	1.4	5.0	5.0	319.5
35	8/ 7/77	23	59	8.0	5.3	5.3	319.7
35	8/ 8/77	0	13	1.1	5.6	0.3	320.0
35	8/ 8/77	0	16	42.4	7.7	2.4	322.1
35	8/ 8/77	0	23	2.3	8.0	2.7	322.4
35	8/ 8/77	0	26	15.9	8.8	3.4	323.2
35	8/ 8/77	0	30	8.0	9.3	4.0	323.7
35	8/ 8/77	1	0	0.5	9.5	4.2	324.0
35	8/ 8/77	1	3	5.3	9.8	4.5	324.3
35	8/ 8/77	1	9	2.7	10.1	4.8	324.5
35	8/ 8/77	1	22	18.4	14.1	8.8	328.5
35	8/ 8/77	3	40	0.6	15.4	10.1	329.8
35	8/ 8/77	3	45	12.7	16.4	11.1	330.9

TABLE B1-11. CONTINUED

GAGE	DATE	HOUR	MIN	PRECIP INTENSITY MM/HR	ACCUMULATED STORM MM	PRECIPITATION DAY MM	PRECIPITATION YEAR MM
35	8/ 8/77	3	54	1.8	16.7	11.4	331.1
35	8/ 8/77	3	58	4.0	17.0	11.7	331.4
35	8/ 8/77	4	10	1.3	17.2	11.9	331.7
35	8/ 8/77	5	6	0.3	17.5	12.2	331.9
35	8/ 8/77	5	9	26.5	18.8	13.5	333.3
35	8/ 8/77	5	18	8.8	20.2	14.8	334.6
35	8/ 8/77	5	23	3.2	20.4	15.1	334.9
35	8/ 8/77	5	27	8.0	20.9	15.6	335.4
35	8/ 8/77	5	34	11.4	22.3	17.0	336.7
35	8/ 8/77	5	40	2.7	22.5	17.2	337.0
35	8/ 8/77	5	53	1.2	22.8	17.5	337.2
35	8/ 8/77	5	56	5.3	23.1	17.8	337.5
35	8/ 8/77	6	25	0.5	23.3	18.0	337.8
35	8/ 8/77	6	40	1.1	23.6	18.3	338.0
35	8/ 8/77	7	15	0.9	24.1	18.8	338.6
35	8/ 9/77	5	20	0.0	0.0	0.0	338.6
35	8/ 9/77	5	28	3.9	0.5	0.5	339.1
35	8/ 9/77	5	35	15.6	2.3	2.3	340.9
35	8/ 9/77	5	46	2.8	2.9	2.9	341.4
35	8/ 9/77	6	12	0.6	3.1	3.1	341.7
35	8/ 9/77	6	36	2.6	4.2	4.2	342.7
35	8/ 9/77	7	30	1.2	5.2	5.2	343.8
35	8/ 9/77	7	36	2.6	5.5	5.5	344.0
35	8/ 9/77	7	50	2.2	6.0	6.0	344.5
35	8/ 9/77	8	8	10.4	9.1	9.1	347.7
35	8/ 9/77	8	13	3.1	9.4	9.4	347.9
35	8/ 9/77	8	20	4.5	9.9	9.9	348.4
35	8/ 9/77	8	35	4.2	10.9	10.9	349.5
35	8/ 9/77	8	50	2.1	11.4	11.4	350.0
35	8/13/77			NO DATA	0.0	0.0	350.0
35	8/13/77			NO DATA	3.0	3.0	353.0
35	8/15/77	18	10	0.0	0.0	0.0	353.0
35	8/15/77	18	20	6.6	1.1	1.1	354.1
35	8/15/77	18	30	6.6	2.2	2.2	355.2
35	8/15/77	18	43	1.3	2.5	2.5	355.5
35	8/15/77	18	51	2.0	2.7	2.7	355.8
35	8/15/77	19	0	1.8	3.0	3.0	356.1
35	8/15/77	19	23	0.7	3.3	3.3	356.3
35	8/15/77	19	24	32.8	3.8	3.8	356.9
35	8/15/77	19	26	8.2	4.1	4.1	357.1
35	8/15/77	19	27	16.4	4.4	4.4	357.4
35	8/15/77	19	30	10.9	4.9	4.9	358.0
35	8/15/77	19	33	10.9	5.5	5.5	358.5
35	8/15/77	19	40	2.3	5.7	5.7	358.8
35	8/15/77	19	43	10.9	6.3	6.3	359.3
35	8/15/77	19	46	5.5	6.6	6.6	359.6
35	8/15/77	19	55	1.8	6.8	6.8	359.9
35	8/15/77	20	8	5.0	7.9	7.9	361.0
35	8/15/77	20	11	5.5	8.2	8.2	361.2
35	8/15/77	20	15	4.1	8.5	8.5	361.5
35	8/15/77	20	17	8.2	8.7	8.7	361.8
35	8/15/77	20	23	13.7	10.1	10.1	363.1
35	8/15/77	20	30	11.7	11.5	11.5	364.5
35	8/15/77	20	33	21.9	12.6	12.6	365.6
35	8/15/77	20	37	8.2	13.1	13.1	366.2
35	8/15/77	20	40	5.5	13.4	13.4	366.4
35	8/15/77	20	47	2.3	13.7	13.7	366.7
35	8/15/77	20	52	3.3	13.9	13.9	367.0
35	8/15/77	20	55	10.9	14.5	14.5	367.5
35	8/15/77	20	58	5.5	14.7	14.7	367.8
35	8/15/77	21	1	5.5	15.0	15.0	368.1
35	8/15/77	21	6	3.3	15.3	15.3	368.3
35	8/15/77	21	10	4.1	15.6	15.6	368.6
35	8/15/77	21	41	1.1	16.1	16.1	369.2
35	8/15/77	21	50	1.8	16.4	16.4	369.4
35	8/15/77	22	16	2.5	17.5	17.5	370.5
35	8/15/77	22	25	23.7	21.0	21.0	374.1
35	8/15/77	22	29	69.6	25.7	25.7	378.7
35	8/15/77	22	30	163.7	28.4	28.4	381.4
35	8/15/77	22	32	24.6	29.2	29.2	382.3
35	8/15/77	22	44	4.1	30.0	30.0	383.1
35	8/15/77	22	46	8.2	30.3	30.3	383.4
35	8/15/77	22	53	4.7	30.9	30.9	383.9
35	8/15/77	23	0	2.3	31.1	31.1	384.2
35	8/15/77	23	38	2.6	32.8	32.8	385.8
35	8/15/77	23	55	1.9	33.3	33.3	386.4
35	8/16/77	0	9	2.3	33.9	0.5	386.9
35	8/16/77	0	25	5.1	35.2	1.9	388.3
35	8/16/77	0	50	1.3	35.8	2.5	388.8
35	8/16/77	1	10	1.6	36.3	3.0	389.4
35	8/19/77			NO DATA	0.0	0.0	389.4
35	8/19/77			NO DATA	5.1	5.1	394.4
35	8/21/77			NO DATA	0.0	0.0	394.4
35	8/21/77			NO DATA	3.0	3.0	397.5
35	8/25/77	21	50	0.0	0.0	0.0	397.5
35	8/25/77	22	5	2.0	0.5	0.5	398.0
35	8/25/77	22	7	29.8	1.5	1.5	399.0
35	8/25/77	22	22	1.0	1.7	1.7	399.2
35	8/25/77	22	24	7.5	2.0	2.0	399.5
35	8/25/77	22	41	1.8	2.5	2.5	400.0
35	8/25/77	22	46	6.0	3.0	3.0	400.5
35	8/25/77	22	50	18.6	4.2	4.2	401.7
35	8/25/77	22	52	37.3	5.5	5.5	403.0
35	8/25/77	22	54	14.9	6.0	6.0	403.5
35	8/25/77	23	0	2.5	6.2	6.2	403.7
35	8/25/77	23	4	26.1	8.0	8.0	405.4
35	8/25/77	23	7	14.9	8.7	8.7	406.2
35	8/25/77	23	13	2.5	8.9	8.9	406.4

TABLE B1-11. CONTINUED

GAGE	DATE	HOUR	MIN	PRECIP INTENSITY MM/HR	ACCUMULATED STORM MM	PRECIPITATION DAY MM	PRECIPITATION YEAR MM
35	8/25/77	23	22	1.7	9.2	9.2	406.7
35	8/26/77	0	29	0.4	9.7	0.5	407.2
35	8/26/77	0	34	6.0	10.2	1.0	407.7
35	8/26/77	1	27	0.0	10.2	1.0	407.7
35	8/26/77	1	33	2.5	10.4	1.2	407.9
35	8/26/77	6	58	0.2	11.4	2.2	408.9
35	8/27/77	19	56	0.0	0.0	0.0	408.9
35	8/27/77	20	10	5.6	1.3	1.3	410.2
35	8/27/77	20	15	9.5	2.1	2.1	411.0
35	8/27/77	20	18	15.8	2.9	2.9	411.8
35	8/27/77	20	20	23.7	3.7	3.7	412.6
35	8/27/77	20	37	0.0	3.7	3.7	412.6
35	8/27/77	20	40	5.3	4.0	4.0	412.9
35	8/27/77	20	43	5.3	4.2	4.2	413.1
35	8/27/77	20	45	23.7	5.0	5.0	413.9
35	8/27/77	20	48	5.3	5.3	5.3	414.2
35	8/27/77	20	50	7.9	5.5	5.5	414.5
35	8/27/77	22	41	0.1	5.8	5.8	414.7
35	8/27/77	22	44	5.3	6.1	6.1	415.0
35	8/27/77	22	47	5.3	6.3	6.3	415.2
35	8/27/77	22	52	3.2	6.6	6.6	415.5
35	8/27/77	22	54	7.9	6.9	6.9	415.8
35	8/27/77	22	57	5.3	7.1	7.1	416.0
35	8/27/77	23	2	3.2	7.4	7.4	416.3
35	8/27/77	23	12	30.0	12.4	12.4	421.3
35	8/27/77	23	15	5.3	12.6	12.6	421.6
35	8/27/77	23	22	6.8	13.4	13.4	422.4
35	8/27/77	23	24	7.9	13.7	13.7	422.6
35	8/27/77	23	32	4.0	14.2	14.2	423.1
35	8/27/77	23	40	2.0	14.5	14.5	423.4
35	8/27/77	23	50	1.6	14.8	14.8	423.7
35	8/27/77	23	57	6.8	15.5	15.5	424.5
35	8/28/77	0	4	2.3	15.8	0.3	424.7
35	8/28/77	0	14	1.6	16.1	0.5	425.0
35	8/28/77	0	22	7.9	17.1	1.6	426.0
35	8/28/77	0	25	21.1	18.2	2.6	427.1
35	8/28/77	0	30	6.3	18.7	3.2	427.6
35	8/28/77	0	33	31.6	20.3	4.7	429.2
35	8/28/77	0	36	21.1	21.3	5.8	430.3
35	8/28/77	0	40	19.8	22.7	7.1	431.6
35	8/28/77	0	44	11.9	23.4	7.9	432.4
35	8/28/77	0	58	2.3	24.0	8.4	432.9
35	8/28/77	1	15	1.9	24.5	9.0	433.4
35	8/28/77	1	38	0.7	24.8	9.2	433.7
35	8/28/77	1	43	3.2	25.0	9.5	433.9
35	8/28/77	1	57	1.1	25.3	9.7	434.2
35	8/28/77	2	3	5.3	25.8	10.3	434.7
35	8/28/77	2	8	6.3	26.3	10.8	435.3
35	8/28/77	2	11	10.5	26.9	11.3	435.8
35	8/28/77	2	15	4.0	27.1	11.6	436.1
35	8/28/77	2	19	7.9	27.7	12.1	436.6
35	8/28/77	2	21	7.9	27.9	12.4	436.8
35	8/28/77	3	0	2.4	29.5	14.0	438.4
35	8/28/77	3	30	1.1	30.0	14.5	439.0
35	8/28/77	3	44	1.1	30.3	14.8	439.2
35	8/28/77	4	3	2.5	31.1	15.5	440.0
35	8/28/77	4	10	2.3	31.4	15.8	440.3
35	8/28/77	4	20	1.6	31.6	16.1	440.5
35	8/28/77	4	36	1.0	31.9	16.3	440.8
35	8/28/77	4	44	2.0	32.1	16.6	441.1
35	8/28/77	4	53	1.8	32.4	16.9	441.3
35	8/28/77	4	57	4.0	32.7	17.1	441.6
35	8/28/77	6	32	0.2	32.9	17.4	441.8
35	8/28/77	7	15	1.1	33.7	18.2	442.6
35	8/28/77	8	33	0.4	34.3	18.7	443.2
35	8/28/77	8	50	0.9	34.5	19.0	443.4
35	8/28/77	9	7	0.9	34.8	19.2	443.7
35	8/28/77	9	25	1.8	35.3	19.8	444.2
35	8/31/77	5	0	0.0	0.0	0.0	444.2
35	8/31/77	6	8	0.8	0.9	0.9	445.1
35	8/31/77	6	22	3.9	1.8	1.8	446.0
35	8/31/77	6	32	5.5	2.7	2.7	447.0
35	8/31/77	6	40	4.6	3.4	3.4	447.6
35	8/31/77	7	7	2.7	4.6	4.6	448.8
35	8/31/77	7	40	1.1	5.2	5.2	449.4
35	8/31/77	7	58	4.1	6.4	6.4	450.6
35	8/31/77	8	30	2.3	7.6	7.6	451.8
35	8/31/77	22	38	0.0	0.0	7.6	451.8
35	8/31/77	22	42	3.8	0.3	7.9	452.1
35	8/31/77	22	47	45.7	4.1	11.7	455.9
35	8/31/77	22	53	7.6	4.8	12.4	456.7
35	8/31/77	22	58	9.1	5.6	13.2	457.4
35	8/31/77	23	11	1.2	5.8	13.5	457.7
35	8/31/77	23	13	15.2	6.3	14.0	458.2
35	8/31/77	23	18	73.2	12.4	20.1	464.3
35	8/31/77	23	19	30.5	13.0	20.6	464.8
35	9/ 1/77	1	42	0.1	13.2	0.3	465.0
35	9/ 1/77	1	43	45.7	14.0	1.0	465.8
35	9/ 1/77	2	10	1.1	14.5	1.5	466.3
35	9/ 3/77	12	40	0.0	0.0	0.0	466.3
35	9/ 3/77	12	47	2.6	0.3	0.3	466.6
35	9/ 3/77	12	55	2.3	0.6	0.6	466.9
35	9/ 3/77	13	8	2.8	1.2	1.2	467.5
35	9/ 3/77	13	20	3.0	1.8	1.8	468.1
35	9/ 3/77	13	34	5.2	3.0	3.0	469.3
35	9/ 3/77	13	40	6.0	3.6	3.6	469.9
35	9/ 3/77	13	45	7.3	4.2	4.2	470.5
35	9/ 3/77	14	20	3.6	6.3	6.3	472.7
35	9/ 7/77			NO DATA	0.0	0.0	472.7

TABLE 81-11. CONTINUED

GAGE	DATE	HOUR	MIN	PRECIP INTENSITY MM/HR	ACCUMULATED STORM MM	PRECIPITATION DAY MM	PRECIPITATION YEAR MM
35	9/ 7/77			NO DATA	1.5	1.5	474.2
35	9/ 9/77			NO DATA	0.0	0.0	474.2
35	9/ 9/77			NO DATA	3.8	3.8	478.0
35	9/12/77			NO DATA	0.0	0.0	478.0
35	9/12/77			NO DATA	4.8	4.8	482.8
35	9/15/77			NO DATA	0.0	0.0	482.8
35	9/15/77			NO DATA	3.8	3.8	486.6
35	9/17/77	5	4	0.0	0.0	0.0	486.6
35	9/17/77	5	8	11.7	0.8	0.8	487.4
35	9/17/77	5	24	2.0	1.3	1.3	487.9
35	9/17/77	5	40	2.0	1.8	1.8	488.5
35	9/17/77	6	24	5.3	5.7	5.7	492.4
35	9/17/77	6	37	4.8	6.8	6.8	493.4
35	9/17/77	6	44	4.5	7.3	7.3	493.9
35	9/17/77	6	54	4.7	8.1	8.1	494.7
35	9/17/77	19	15	0.0	8.1	8.1	494.7
35	9/17/77	19	18	10.4	8.6	8.6	495.2
35	9/17/77	19	22	3.9	8.9	8.9	495.5
35	9/17/77	19	28	49.5	13.8	13.8	500.4
35	9/17/77	19	31	114.6	19.5	19.5	506.2
35	9/17/77	19	35	23.4	21.1	21.1	507.7
35	9/17/77	19	45	1.6	21.4	21.4	508.0
35	9/17/77	19	57	67.7	34.9	34.9	521.5
35	9/17/77	20	0	10.4	35.4	35.4	522.1
35	9/17/77	20	2	109.4	39.1	39.1	525.7
35	9/17/77	20	7	65.6	44.5	44.5	531.2
35	9/17/77	21	17	0.2	44.8	44.8	531.4
35	9/17/77	21	20	5.2	45.1	45.1	531.7
35	9/17/77	21	39	0.8	45.3	45.3	531.9
35	9/17/77	21	43	43.0	48.2	48.2	534.8
35	9/17/77	21	49	2.6	48.4	48.4	535.1
35	9/17/77	21	54	28.1	50.8	50.8	537.4
35	9/17/77	22	5	2.8	51.3	51.3	537.9
35	9/17/77	22	17	39.1	59.1	59.1	545.7
35	9/17/77	22	23	85.9	67.7	67.7	554.3
35	9/17/77	22	53	1.0	68.2	68.2	554.9
35	9/17/77	22	58	6.3	68.8	68.8	555.4
35	9/18/77	3	25	0.1	69.3	0.5	555.9
35	9/18/77	3	27	7.8	69.5	0.8	556.2
35	9/18/77	4	58	0.3	70.1	1.3	556.7
35	9/18/77	5	2	23.4	71.6	2.9	558.2
35	9/18/77	5	12	1.6	71.9	3.1	558.5
35	9/18/77	5	18	15.6	73.4	4.7	560.1
35	9/18/77	5	22	11.7	74.2	5.5	560.9
35	9/18/77	5	28	5.2	74.7	6.0	561.4
35	9/18/77	5	51	2.0	75.5	6.8	562.2
35	9/18/77	5	57	7.8	76.3	7.6	562.9
35	9/18/77	6	3	7.8	77.1	8.3	563.7
35	9/18/77	6	6	5.2	77.3	8.6	564.0
35	9/18/77	7	3	0.8	78.1	9.4	564.8
35	9/18/77	7	6	46.9	80.5	11.7	567.1
35	9/18/77	7	7	15.6	80.7	12.0	567.4
35	9/18/77	7	12	6.3	81.3	12.5	567.9
35	9/18/77	7	17	9.4	82.0	13.3	568.7
35	9/18/77	7	55	0.4	82.3	13.5	568.9
35	9/23/77	7	55	0.0	0.0	0.0	568.9
35	9/23/77	8	12	2.7	0.8	0.8	569.7
35	9/23/77	8	30	1.7	1.3	1.3	570.2
35	9/23/77	8	50	0.8	1.5	1.5	570.5
35	9/23/77	9	3	1.2	1.8	1.8	570.7
35	9/23/77	9	7	3.9	2.1	2.1	571.0
35	9/23/77	9	30	0.7	2.3	2.3	571.2
35	9/23/77	9	51	2.2	3.1	3.1	572.0
35	9/23/77	10	4	3.6	3.9	3.9	572.8
35	9/23/77	10	15	2.8	4.4	4.4	573.3
35	9/23/77	10	25	3.1	4.9	4.9	573.8
35	9/23/77	10	30	3.1	5.1	5.1	574.1
35	9/23/77	10	42	2.6	5.7	5.7	574.6
35	9/23/77	11	0	0.9	5.9	5.9	574.8
35	9/23/77	11	10	1.5	6.2	6.2	575.1
35	9/23/77	11	20	1.5	6.4	6.4	575.4
35	9/23/77	11	30	3.1	6.9	6.9	575.9
35	9/23/77	11	58	1.1	7.5	7.5	576.4
35	9/23/77	14	47	0.0	7.5	7.5	576.4
35	9/23/77	14	51	7.7	8.0	8.0	576.9
35	9/23/77	15	35	0.4	8.2	8.2	577.2
35	9/23/77	15	40	6.2	8.7	8.7	577.7
35	9/23/77	15	50	3.1	9.3	9.3	578.2
35	9/23/77	18	17	0.2	9.8	9.8	578.7
35	9/23/77	18	20	20.6	10.8	10.8	579.7
35	9/23/77	18	26	2.6	11.1	11.1	580.0
35	9/23/77	18	33	2.2	11.3	11.3	580.2
35	9/23/77	21	24	0.0	11.3	11.3	580.2
35	9/23/77	21	30	5.1	11.8	11.8	580.8
35	9/23/77	21	42	0.0	11.8	11.8	580.8
35	9/23/77	21	44	15.4	12.3	12.3	581.3
35	9/23/77	21	46	7.7	12.6	12.6	581.5
35	9/23/77	21	52	28.3	15.4	15.4	584.4
35	9/23/77	21	54	7.7	15.7	15.7	584.6
35	9/23/77	21	56	46.3	17.2	17.2	586.2
35	9/23/77	21	59	5.1	17.5	17.5	586.4
35	9/23/77	22	5	25.7	20.1	20.1	589.0
35	9/30/77	1	5	0.0	0.0	0.0	589.0
35	9/30/77	1	44	2.0	1.3	1.3	590.3
35	9/30/77	1	56	7.9	2.9	2.9	591.9
35	9/30/77	2	4	21.7	5.8	5.8	594.8
35	9/30/77	2	28	5.9	8.2	8.2	597.1
35	9/30/77	2	40	5.3	9.2	9.2	598.2

TABLE B1-11. CONTINUED

GAGE	DATE	HOUR	MIN	PRECIP INTENSITY MM/HR	ACCUMULATED STORM MM	PRECIPITATION DAY MM	PRECIPITATION YEAR MM
35	9/30/77	17	15	0.0	9.2	9.2	598.2
35	9/30/77	17	19	3.9	9.5	9.5	598.5
35	9/30/77	17	36	1.9	10.0	10.0	599.0
35	9/30/77	17	42	7.9	10.8	10.8	599.8
35	9/30/77	17	58	3.0	11.6	11.6	600.6
35	9/30/77	18	1	10.5	12.1	12.1	601.1
35	9/30/77	19	37	0.5	12.9	12.9	601.9
35	9/30/77	19	41	43.4	15.8	15.8	604.8
35	9/30/77	19	44	36.9	17.6	17.6	606.6
35	9/30/77	19	47	26.3	19.0	19.0	607.9
35	9/30/77	19	51	11.8	19.7	19.7	608.7
35	9/30/77	20	4	8.5	21.6	21.6	610.6
35	10/ 7/77	7	20	0.0	0.0	0.0	610.6
35	10/ 7/77	7	53	0.5	0.3	0.3	610.8
35	10/ 7/77	8	34	0.4	0.5	0.5	611.1
35	10/ 7/77	8	50	1.0	0.8	0.8	611.4
35	10/ 7/77	9	4	1.1	1.1	1.1	611.6
35	10/ 7/77	9	12	4.0	1.6	1.6	612.2
35	10/ 7/77	9	40	1.1	2.1	2.1	612.7
35	10/ 7/77	9	54	1.1	2.4	2.4	613.0
35	10/ 7/77	10	4	3.2	2.9	2.9	613.5
35	10/ 7/77	10	24	4.0	4.3	4.3	614.8
35	10/ 7/77	10	33	3.5	4.8	4.8	615.4
35	10/ 7/77	10	43	4.8	5.6	5.6	616.2
35	10/ 7/77	11	7	2.0	6.4	6.4	617.0
35	10/ 7/77	12	19	3.1	10.1	10.1	620.7
35	10/ 7/77	12	29	1.6	10.4	10.4	620.9
35	10/ 7/77	12	52	3.5	11.7	11.7	622.3
35	10/ 7/77	13	0	4.0	12.2	12.2	622.8
35	10/ 7/77	13	9	8.9	13.6	13.6	624.1
35	10/ 7/77	13	24	3.2	14.4	14.4	624.9
35	10/ 7/77	13	34	8.0	15.7	15.7	626.3
35	10/ 7/77	13	43	5.3	16.5	16.5	627.0
35	10/ 7/77	13	50	2.3	16.7	16.7	627.3
35	10/ 7/77	13	56	2.7	17.0	17.0	627.6
35	10/ 7/77	14	35	1.2	17.8	17.8	628.4
35	10/ 7/77	14	41	2.7	18.1	18.1	628.6
35	10/ 7/77	14	46	3.2	18.3	18.3	628.9
35	10/ 7/77	14	50	4.0	18.6	18.6	629.2
35	10/ 7/77	14	55	3.2	18.9	18.9	629.4
35	10/ 7/77	15	1	8.0	19.7	19.7	630.2
35	10/ 7/77	15	53	4.9	23.9	23.9	634.5
35	10/ 7/77	16	4	4.3	24.7	24.7	635.3
35	10/ 7/77	16	14	9.6	26.3	26.3	636.9
35	10/ 7/77	18	20	0.5	27.4	27.4	637.9
35	10/ 7/77	19	20	0.8	28.2	28.2	638.7
35	10/ 7/77	21	10	0.3	28.7	28.7	639.3
35	10/10/77			NO DATA	0.0	0.0	639.3
35	10/10/77			NO DATA	5.1	5.1	644.4

GAGE	DATE	HOUR	MIN	PRECIP INTENSITY MM/HR	ACCUMULATED STORM MM	PRECIPITATION DAY MM	PRECIPITATION YEAR MM
35	10/21/77	22	25	0.0	0.0	0.0	644.4
35	10/21/77	22	40	3.5	0.9	0.9	645.2
35	10/21/77	22	53	1.3	1.2	1.2	645.5
35	10/21/77	23	2	3.9	1.7	1.7	646.1
35	10/21/77	23	14	2.9	2.3	2.3	646.7
35	10/21/77	23	25	4.8	3.2	3.2	647.6
35	10/21/77	23	41	2.2	3.8	3.8	648.1
35	10/21/77	23	50	5.8	4.7	4.7	649.0
35	10/21/77	23	55	7.0	5.2	5.2	649.6
35	10/22/77	0	11	5.5	6.7	1.5	651.1
35	10/22/77	0	25	6.2	8.2	2.9	652.5
35	10/22/77	0	31	2.9	8.4	3.2	652.8
35	10/22/77	0	47	2.2	9.0	3.8	653.4
35	10/22/77	1	55	0.8	9.9	4.7	654.3
35	10/22/77	13	35	0.0	0.0	4.7	654.3
35	10/22/77	13	40	7.5	0.6	5.3	654.9
35	10/22/77	13	55	2.5	1.3	5.9	655.5
35	10/22/77	14	30	1.6	2.2	6.9	656.5
35	10/22/77	14	41	1.7	2.5	7.2	656.8
35	10/22/77	14	52	1.7	2.8	7.5	657.1
35	10/22/77	14	58	3.1	3.1	7.8	657.4
35	10/22/77	15	30	1.2	3.8	8.4	658.0
35	10/22/77	15	41	3.4	4.4	9.1	658.6
35	10/22/77	20	5	0.2	5.3	10.0	659.6
35	10/23/77	1	1	0.0	0.0	0.0	659.6
35	10/23/77	1	12	1.4	0.3	0.3	659.9
35	10/23/77	1	41	0.5	0.5	0.5	660.1
35	10/23/77	2	9	2.3	1.6	1.6	661.2
35	10/23/77	2	23	3.4	2.4	2.4	662.0
35	10/23/77	2	45	5.8	4.5	4.5	664.1
35	10/23/77	2	55	1.6	4.8	4.8	664.3
35	10/23/77	3	12	1.9	5.3	5.3	664.9
35	10/23/77	6	18	0.0	5.3	5.3	664.9
35	10/23/77	6	31	7.3	6.9	6.9	666.4
35	10/23/77	6	41	6.3	7.9	7.9	667.5
35	10/23/77	6	48	4.5	8.4	8.4	668.0
35	10/23/77	6	57	5.3	9.2	9.2	668.8
35	10/23/77	7	1	4.0	9.5	9.5	669.1
35	10/23/77	7	9	2.0	9.8	9.8	669.4
35	10/23/77	7	21	4.0	10.6	10.6	670.1
35	10/23/77	8	8	0.0	10.6	10.6	670.1
35	10/23/77	8	17	3.5	11.1	11.1	670.7
35	10/23/77	8	22	3.2	11.3	11.3	670.9
35	10/23/77	8	28	2.6	11.6	11.6	671.2
35	10/23/77	8	35	2.3	11.9	11.9	671.5
35	10/23/77	8	51	1.0	12.1	12.1	671.7
35	10/23/77	9	18	4.1	14.0	14.0	673.6
35	10/23/77	9	21	10.6	14.5	14.5	674.1
35	10/23/77	9	28	18.1	16.6	16.6	676.2
35	10/23/77	9	32	27.7	18.5	18.5	678.1

TABLE B1-11. CONCLUDED

GAGE	DATE	HOUR	MIN	PRECIP INTENSITY MM/HR	ACCUMULATED STORM MM	PRECIPITATION DAY MM	PRECIPITATION YEAR MM
35	10/23/77	9	49	4.7	19.8	19.8	679.4
35	10/23/77	9	55	2.6	20.1	20.1	679.6
35	10/23/77	10	20	1.3	20.6	20.6	680.2
35	10/23/77	11	38	0.0	20.6	20.6	680.2
35	10/23/77	11	41	0.0	20.6	20.6	680.2
35	10/23/77	11	56	4.2	21.6	21.6	681.2
35	10/23/77	12	0	7.9	22.2	22.2	681.8
35	10/23/77	12	11	4.3	23.0	23.0	682.5
35	10/23/77	12	33	0.7	23.2	23.2	682.8
35	10/23/77	12	47	1.1	23.5	23.5	683.1
35	10/23/77	12	57	4.8	24.3	24.3	683.9
35	10/23/77	13	1	4.0	24.5	24.5	684.1
35	10/23/77	13	15	1.1	24.8	24.8	684.4
35	10/23/77	13	25	3.2	25.3	25.3	684.9
35	10/23/77	13	55	2.1	26.4	26.4	686.0
35	10/23/77	14	5	3.2	26.9	26.9	686.5
35	10/23/77	14	20	1.1	27.2	27.2	686.8
35	10/23/77	14	27	4.5	27.7	27.7	687.3
35	10/23/77	14	35	4.0	28.2	28.2	687.8
35	10/23/77	15	5	1.1	28.8	28.8	688.3
35	10/23/77	15	10	3.2	29.0	29.0	688.6
35	10/23/77	15	35	1.9	29.8	29.8	689.4
35	10/23/77	15	45	1.6	30.1	30.1	689.7
35	10/23/77	15	53	0.0	30.1	30.1	689.7
35	10/23/77	16	0	2.3	30.3	30.3	689.9
35	10/23/77	16	18	0.9	30.6	30.6	690.2
35	10/23/77	17	28	0.9	31.7	31.7	691.2
35	10/23/77	17	30	7.9	31.9	31.9	691.5
35	10/23/77	17	38	2.0	32.2	32.2	691.8
35	10/23/77	17	40	15.8	32.7	32.7	692.3
35	10/23/77	17	51	2.9	33.3	33.3	692.8
35	10/23/77	18	0	1.8	33.5	33.5	693.1
35	10/23/77	18	55	0.9	34.3	34.3	693.9
35	10/23/77	19	20	0.6	34.6	34.6	694.1
35	10/24/77	4	8	0.0	34.6	0.0	694.1
35	10/24/77	4	11	10.6	35.1	0.5	694.7
35	10/24/77	4	29	0.0	35.1	0.5	694.7
35	10/24/77	4	35	2.6	35.4	0.8	694.9
35	10/24/77	4	48	1.2	35.6	1.1	695.2
35	10/24/77	4	51	5.3	35.9	1.3	695.5
35	10/24/77	5	17	1.2	36.4	1.8	696.0
35	10/24/77	5	21	7.9	36.9	2.4	696.5
35	10/24/77	5	32	4.3	37.7	3.2	697.3
35	10/24/77	6	5	2.4	39.1	4.5	698.6
35	10/24/77	7	25	0.8	40.1	5.5	699.7
35	10/24/77	7	35	1.6	40.4	5.8	700.0
35	10/24/77	7	45	1.6	40.6	6.1	700.2
35	10/30/77	21	40	0.0	0.0	0.0	700.2
35	10/30/77	21	46	9.0	0.9	0.9	701.1
35	10/30/77	21	49	6.0	1.2	1.2	701.4
35	10/30/77	21	50	36.1	1.8	1.8	702.0
35	10/30/77	21	53	6.0	2.1	2.1	702.3
35	10/30/77	22	27	0.5	2.4	2.4	702.6
35	10/30/77	22	29	9.0	2.7	2.7	702.9
35	10/31/77	0	25	0.5	3.6	0.9	703.8
35	10/31/77	0	55	0.6	3.9	1.2	704.1
35	10/31/77	1	10	1.2	4.2	1.5	704.4
35	10/31/77	1	39	1.9	5.1	2.4	705.3
35	10/31/77	1	55	1.1	5.4	2.7	705.6
35	10/31/77	1	57	9.0	5.7	3.0	705.9
35	10/31/77	2	5	2.3	6.0	3.3	706.2
35	10/31/77	2	24	0.9	6.3	3.6	706.5
35	10/31/77	3	15	1.1	7.2	4.5	707.4
35	10/31/77	3	30	2.4	7.8	5.1	708.0
35	10/31/77	3	38	2.3	8.1	5.4	708.3
35	10/31/77	3	51	2.8	8.7	6.0	708.9
35	10/31/77	4	7	3.4	9.6	6.9	709.8
35	10/31/77	4	41	1.1	10.2	7.5	710.4
35	10/31/77	5	5	0.8	10.5	7.8	710.7
35	10/31/77	8	5	0.0	10.5	7.8	710.7
35	10/31/77	8	35	1.8	11.4	8.7	711.6
35	11/ 1/77			NO DATA	0.0	0.0	711.6
35	11/ 1/77			NO DATA	1.3	1.3	712.9
35	11/ 1/77			NO DATA	0.0	1.3	712.9
35	11/ 1/77			NO DATA	2.5	3.8	715.5
35	11/ 3/77			NO DATA	0.0	0.0	715.5
35	11/ 3/77			NO DATA	3.3	3.3	718.8
35	11/ 9/77			NO DATA	0.0	0.0	718.8
35	11/ 9/77			NO DATA	2.0	2.0	720.8
35	11/20/77			NO DATA	0.0	0.0	720.8
35	11/20/77			NO DATA	5.1	5.1	725.9

TABLE B1-12. FOUR MILE CREEK WATERSHED PRECIPITATION DATA FOR 1977 GAGE 36

GAGE	DATE	HOUR	MIN	PRECIP INTENSITY MM/HR	ACCUMULATED STORM MM	PRECIPITATION DAY MM	PRECIPITATION YEAR MM
36	1/ 3/77			SNOW	0.0	0.0	0.0
36	1/ 3/77			SNOW	1.0	1.0	1.0
36	1/14/77			SNOW	0.0	0.0	1.0
36	1/14/77			SNOW	1.0	1.0	2.0
36	1/20/77			SNOW	0.0	0.0	2.0
36	1/20/77			SNOW	2.0	2.0	4.1
36	1/23/77			SNOW	0.0	0.0	4.1
36	1/23/77			SNOW	1.0	1.0	5.1
36	1/28/77			SNOW	0.0	0.0	5.1
36	1/28/77			SNOW	1.0	1.0	6.1
36	2/ 5/77			SNOW	0.0	0.0	6.1
36	2/ 5/77			SNOW	1.0	1.0	7.1
36	2/23/77			NO DATA	0.0	0.0	7.1
36	2/23/77			NO DATA	12.2	12.2	19.3
36	3/ 2/77			NO DATA	0.0	0.0	19.3
36	3/ 2/77			NO DATA	4.1	4.1	23.4
36	3/11/77	8	30	0.0	0.0	0.0	23.4
36	3/11/77	8	40	3.1	0.5	0.5	23.9
36	3/11/77	8	55	6.2	2.1	2.1	25.4
36	3/11/77	9	0	6.2	2.6	2.6	25.9
36	3/11/77	9	13	5.9	3.8	3.8	27.2
36	3/11/77	9	20	2.2	4.1	4.1	27.5
36	3/11/77	9	30	3.1	4.6	4.6	28.0
36	3/11/77	10	0	0.5	4.9	4.9	28.2
36	3/11/77	10	10	3.1	5.4	5.4	28.8
36	3/11/77	10	16	5.1	5.9	5.9	29.3
36	3/11/77	10	29	2.4	6.4	6.4	29.8
36	3/11/77	10	37	5.8	7.2	7.2	30.5
36	3/11/77	11	5	1.1	7.7	7.7	31.1
36	3/11/77	11	11	2.6	8.0	8.0	31.3
36	3/11/77	11	36	8.6	11.5	11.5	34.9
36	3/11/77	12	6	3.1	13.1	13.1	36.4
36	3/11/77	12	36	2.6	14.4	14.4	37.7
36	3/11/77	13	10	6.3	18.0	18.0	41.3
36	3/11/77	13	24	8.8	20.0	20.0	43.4
36	3/11/77	13	30	5.1	20.5	20.5	43.9
36	3/11/77	13	40	3.1	21.0	21.0	44.4
36	3/11/77	13	50	1.5	21.3	21.3	44.7
36	3/11/77	14	10	1.5	21.8	21.8	45.2
36	3/11/77	14	28	2.6	22.6	22.6	45.9
36	3/11/77	14	37	3.4	23.1	23.1	46.5
36	3/11/77	14	40	5.1	23.3	23.3	46.7
36	3/11/77	14	50	3.1	23.9	23.9	47.2
36	3/11/77	15	0	0.0	23.9	23.9	47.2
36	3/11/77	16	54	0.7	25.1	25.1	48.5
36	3/11/77	17	0	7.7	25.9	25.9	49.3
36	3/11/77	17	4	3.8	26.2	26.2	49.5
36	3/11/77	17	9	33.9	29.0	29.0	52.4
36	3/11/77	17	14	15.4	30.3	30.3	53.6
36	3/11/77	17	23	1.7	30.5	30.5	53.9
36	3/11/77	17	33	10.8	32.3	32.3	55.7
36	3/11/77	17	40	15.4	34.1	34.1	57.5
36	3/11/77	18	0	2.3	34.9	34.9	58.3
36	3/11/77	18	40	0.8	35.4	35.4	58.8
36	3/11/77	18	45	3.1	35.7	35.7	59.0
36	3/11/77	18	56	1.4	35.9	35.9	59.3
36	3/11/77	19	4	15.4	38.0	38.0	61.3
36	3/11/77	19	10	30.8	41.0	41.0	64.4
36	3/11/77	19	15	18.5	42.6	42.6	65.9
36	3/11/77	19	24	12.0	44.4	44.4	67.7
36	3/11/77	19	27	5.1	44.6	44.6	68.0
36	3/11/77	19	30	5.1	44.9	44.9	68.3
36	3/11/77	19	45	3.1	45.7	45.7	69.0
36	3/11/77	20	25	0.0	45.7	45.7	69.0
36	3/11/77	20	49	0.6	45.9	45.9	69.3
36	3/11/77	20	55	7.7	46.7	46.7	70.1
36	3/11/77	21	31	1.3	47.5	47.5	70.8
36	3/11/77	21	41	4.6	48.2	48.2	71.6
36	3/11/77	21	55	1.1	48.5	48.5	71.8
36	3/11/77	22	4	6.8	49.5	49.5	72.9
36	3/11/77	22	10	5.1	50.0	50.0	73.4
36	3/11/77	22	23	1.2	50.3	50.3	73.6
36	3/11/77	22	37	3.3	51.0	51.0	74.4
36	3/11/77	22	45	1.9	51.3	51.3	74.7
36	3/12/77	2	10	0.2	52.1	0.8	75.4
36	3/12/77			NO DATA	0.0	0.8	75.4
36	3/12/77			NO DATA	0.5	1.3	75.9
36	3/17/77	8	0	0.0	0.0	0.0	75.9
36	3/17/77	8	10	3.0	0.5	0.5	76.4
36	3/17/77	8	40	3.0	2.0	2.0	77.9
36	3/17/77	8	42	14.9	2.5	2.5	78.4
36	3/17/77	8	50	3.7	3.0	3.0	78.9
36	3/17/77	9	5	2.0	3.5	3.5	79.4
36	3/17/77	9	20	2.0	4.0	4.0	79.9
36	3/17/77	9	33	4.6	5.0	5.0	80.9
36	3/17/77	10	0	0.0	5.0	5.0	80.9
36	3/17/77	10	19	7.1	7.2	7.2	83.1
36	3/17/77	10	33	2.1	7.7	7.7	83.6
36	3/17/77	10	40	8.5	8.7	8.7	84.6
36	3/17/77	10	54	2.1	9.2	9.2	85.1
36	3/17/77	11	7	1.1	9.4	9.4	85.4
36	3/17/77	11	13	5.0	9.9	9.9	85.9
36	3/17/77	13	10	0.5	10.9	10.9	86.9
36	3/17/77	15	30	0.2	11.4	11.4	87.4

TABLE 81-12. CONTINUED

GAGE	DATE	HOUR	MIN	PRECIP INTENSITY MM/HR	ACCUMULATED STORM MM	PRECIPITATION DAY MM	PRECIPITATION YEAR MM
36	3/19/77			SNOW	0.0	0.0	87.4
36	3/19/77			SNOW	5.6	5.6	93.0
36	3/27/77			NO DATA	0.0	0.0	93.0
36	3/27/77			NO DATA	5.1	5.1	98.0
36	3/28/77	7	30	0.0	0.0	0.0	98.0
36	3/28/77	7	46	4.2	1.1	1.1	99.2
36	3/28/77	7	53	2.4	1.4	1.4	99.5
36	3/28/77	8	20	1.3	2.0	2.0	100.0
36	3/28/77	11	35	0.3	2.8	2.8	100.9
36	3/28/77	11	50	2.3	3.4	3.4	101.4
36	3/28/77	12	13	0.0	3.4	3.4	101.4
36	3/28/77	12	16	11.3	4.0	4.0	102.0
36	3/28/77	12	30	3.6	4.8	4.8	102.8
36	3/28/77	12	40	3.4	5.4	5.4	103.4
36	3/28/77	12	45	6.8	5.9	5.9	104.0
36	3/28/77	13	9	0.7	6.2	6.2	104.3
36	3/28/77	13	12	5.6	6.5	6.5	104.5
36	3/28/77	13	26	3.6	7.3	7.3	105.4
36	3/28/77	14	15	1.0	8.2	8.2	106.2
36	3/28/77	18	10	0.3	9.3	9.3	107.4
36	3/28/77	18	30	1.7	9.9	9.9	107.9
36	3/28/77	19	0	1.1	10.4	10.4	108.5
36	3/28/77	20	0	0.3	10.7	10.7	108.8
36	3/28/77	20	20	1.7	11.3	11.3	109.3
36	3/28/77	20	34	2.4	11.9	11.9	109.9
36	3/28/77	20	40	5.6	12.4	12.4	110.5
36	3/28/77	20	50	5.1	13.3	13.3	111.3
36	3/28/77	20	57	4.8	13.8	13.8	111.9
36	3/28/77	24	0	0.5	15.2	15.2	113.3
36	3/29/77			NO DATA	0.0	0.0	113.3
36	3/29/77			NO DATA	2.5	2.5	115.8
36	4/ 1/77	15	0	0.0	0.0	0.0	115.8
36	4/ 1/77	15	55	0.6	0.6	0.6	116.4
36	4/ 1/77	16	35	0.4	0.8	0.8	116.7
36	4/ 1/77	17	46	0.0	0.8	0.8	116.7
36	4/ 1/77	18	26	0.4	1.1	1.1	116.9
36	4/ 1/77	18	48	1.5	1.7	1.7	117.5
36	4/ 1/77	19	50	2.1	3.9	3.9	119.7
36	4/ 1/77	20	12	6.8	6.4	6.4	122.2
36	4/ 1/77	20	20	6.2	7.2	7.2	123.0
36	4/ 1/77	20	44	2.8	8.3	8.3	124.1
36	4/ 1/77	21	11	6.8	11.4	11.4	127.2
36	4/ 1/77	21	30	0.9	11.6	11.6	127.5
36	4/ 2/77	0	4	0.1	11.9	0.3	127.7
36	4/ 2/77	0	36	2.1	13.0	1.4	128.8
36	4/ 2/77	1	35	0.8	13.9	2.2	129.7
36	4/ 2/77	2	3	1.2	14.4	2.8	130.2
36	4/ 2/77	2	20	2.9	15.2	3.6	131.1
36	4/ 2/77			NO DATA	0.0	3.6	131.1
36	4/ 2/77			NO DATA	2.5	6.1	133.6
36	4/ 3/77	19	30	0.0	0.0	0.0	133.6
36	4/ 3/77	19	40	2.6	0.4	0.4	134.0
36	4/ 3/77	19	51	0.0	0.4	0.4	134.0
36	4/ 3/77	20	10	2.1	1.1	1.1	134.7
36	4/ 3/77	20	40	0.4	1.3	1.3	134.9
36	4/ 3/77	21	35	1.4	2.6	2.6	136.2
36	4/ 3/77	22	14	1.0	3.3	3.3	136.9
36	4/ 3/77	22	23	2.9	3.7	3.7	137.3
36	4/ 3/77	23	0	1.1	4.4	4.4	138.0
36	4/ 4/77	2	5	0.2	5.0	0.7	138.6
36	4/ 4/77	2	35	1.7	5.9	1.5	139.5
36	4/ 4/77	3	10	1.1	6.5	2.2	140.1
36	4/ 4/77	3	56	0.9	7.2	2.8	140.8
36	4/ 4/77	4	10	1.9	7.6	3.3	141.2
36	4/ 4/77			NO DATA	0.0	3.3	141.2
36	4/ 4/77			NO DATA	5.1	8.3	146.3
36	4/ 5/77			SNOW	0.0	0.0	146.3
36	4/ 5/77			SNOW	1.3	1.3	147.6
36	4/14/77			NO DATA	0.0	0.0	147.6
36	4/14/77			NO DATA	6.3	6.3	153.9
36	4/19/77	17	8	0.0	0.0	0.0	153.9
36	4/19/77	17	15	4.3	1.1	1.1	155.0
36	4/19/77	17	27	18.9	4.8	4.8	156.8
36	4/19/77	17	30	26.9	6.2	6.2	160.1
36	4/19/77	17	33	10.8	6.7	6.7	160.7
36	4/19/77	17	37	4.0	7.0	7.0	160.9
36	4/19/77	17	39	24.2	7.8	7.8	161.7
36	4/19/77	17	45	5.4	8.4	8.4	162.3
36	4/19/77	17	50	6.5	8.9	8.9	162.8
36	4/20/77	18	30	0.0	0.0	0.0	162.8
36	4/20/77	18	38	5.7	0.8	0.8	163.6
36	4/20/77	19	0	1.4	1.3	1.3	164.1
36	4/20/77	20	48	0.3	1.8	1.8	164.6
36	4/20/77	20	53	6.1	2.3	2.3	165.1
36	4/20/77	20	58	12.2	3.3	3.3	166.1
36	4/20/77	21	2	11.4	4.1	4.1	166.9
36	4/20/77	21	11	6.8	5.1	5.1	167.9
36	4/20/77	21	45	0.9	5.6	5.6	168.4
36	4/20/77	22	3	4.2	6.9	6.9	169.7
36	4/20/77	23	59	0.4	7.6	7.6	170.4
36	4/21/77	0	2	5.1	7.9	0.3	170.7
36	4/21/77	0	17	1.0	8.1	0.5	170.9
36	4/21/77	0	36	4.8	9.7	2.0	172.5
36	4/21/77	0	50	2.2	10.2	2.5	173.0

TABLE B1-12. CONTINUED

GAGE	DATE	HOUR	MIN	PRECIP INTENSITY MM/HR	ACCUMULATED STORM MM	PRECIPITATION DAY MM	PRECIPITATION YEAR MM
36	4/21/77	1	42	4.7	14.2	6.6	177.0
36	4/21/77	2	8	1.8	15.0	7.4	177.8
36	4/21/77	2	20	7.6	16.5	8.9	179.3
36	4/21/77	2	24	0.0	15.5	8.9	179.3
36	4/21/77	7	5	0.3	17.0	10.4	180.8
36	4/28/77	0	30	0.0	0.0	0.0	180.8
36	4/28/77	0	36	9.3	0.9	0.9	181.8
36	4/28/77	1	20	2.5	2.8	2.8	183.6
36	4/28/77	1	46	2.2	3.7	3.7	184.6
36	4/28/77	2	0	3.0	4.4	4.4	185.3
36	4/28/77	2	50	0.6	4.9	4.9	185.8
36	4/28/77	3	4	4.0	5.8	5.8	186.7
36	5/ 3/77	17	15	0.0	0.0	0.0	186.7
36	5/ 3/77	20	33	0.2	0.5	0.5	187.2
36	5/ 3/77	21	30	0.5	1.0	1.0	187.7
36	5/ 3/77	21	52	1.4	1.5	1.5	188.2
36	5/ 4/77	9	34	0.0	1.8	0.3	188.4
36	5/ 4/77	9	37	90.2	6.3	4.8	193.0
36	5/ 4/77	9	40	20.0	7.3	5.8	194.0
36	5/ 4/77	9	45	6.0	7.8	6.3	194.5
36	5/ 4/77	10	0	2.0	8.3	6.8	195.0
36	5/ 4/77	16	0	0.0	8.3	6.8	195.0
36	5/ 4/77	16	14	2.1	8.8	7.3	195.5
36	5/ 4/77	16	21	4.3	9.3	7.8	196.0
36	5/ 4/77	16	27	10.0	10.3	8.8	197.0
36	5/ 4/77	16	32	6.0	10.8	9.3	197.5
36	5/ 4/77	16	35	5.0	11.0	9.5	197.7
36	5/ 4/77	16	39	26.3	12.8	11.3	199.5
36	5/ 4/77	17	35	0.8	13.5	12.0	200.2
36	5/ 4/77	17	40	6.0	14.0	12.5	200.7
36	5/ 4/77	17	52	8.8	15.8	14.3	202.5
36	5/ 4/77	22	7	0.0	15.8	14.3	202.5
36	5/ 4/77	22	14	6.4	16.5	15.0	203.2
36	5/ 4/77	22	35	0.7	16.8	15.3	203.5
36	5/ 4/77	22	56	3.6	18.0	16.5	204.7
36	5/ 4/77	23	30	0.9	18.5	17.0	205.2
36	5/15/77	14	40	0.0	0.0	0.0	205.2
36	5/15/77	14	43	31.6	1.6	1.6	206.8
36	5/15/77	15	30	0.3	1.8	1.8	207.1
36	5/15/77	16	0	0.5	2.1	2.1	207.3
36	5/16/77	1	58	0.0	2.1	0.0	207.3
36	5/16/77	14	0	0.1	3.2	1.1	208.4
36	5/16/77	14	2	71.1	5.5	3.4	210.8
36	5/16/77	14	15	7.3	7.1	5.0	212.3
36	5/17/77			NO DATA	0.0	0.0	212.3
36	5/17/77			NO DATA	1.0	1.0	213.4
36	5/20/77			NO DATA	0.0	0.0	213.4
36	5/20/77			NO DATA	1.3	1.3	214.6
36	5/21/77	13	7	0.0	0.0	0.0	214.6
36	5/21/77	13	9	104.5	3.5	3.5	216.1
36	5/21/77	13	10	174.2	6.4	6.4	221.0
36	5/21/77	13	14	21.8	7.8	7.8	222.5
36	5/21/77	13	35	1.7	8.4	8.4	223.0
36	5/21/77	17	43	0.0	8.4	8.4	223.0
36	5/21/77	17	47	34.8	10.7	10.7	225.4
36	5/21/77	18	30	2.0	12.2	12.2	226.8
36	5/26/77	17	5	0.0	0.0	0.0	226.8
36	5/26/77	17	9	92.5	6.2	6.2	233.0
36	5/26/77	17	14	17.4	7.6	7.6	234.4
36	6/ 8/77			NO DATA	0.0	0.0	234.4
36	6/ 8/77			NO DATA	3.8	3.8	238.2
36	6/11/77	2	40	0.0	0.0	0.0	238.2
36	6/11/77	2	41	67.7	1.1	1.1	239.4
36	6/11/77	2	43	8.5	1.4	1.4	239.7
36	6/11/77	2	45	25.4	2.3	2.3	240.5
36	6/11/77	2	48	11.3	2.8	2.8	241.1
36	6/11/77	2	50	67.7	5.1	5.1	243.3
36	6/11/77	2	54	38.1	7.6	7.6	245.9
36	6/17/77	13	50	0.0	0.0	0.0	245.9
36	6/17/77	13	53	75.0	3.8	3.8	249.6
36	6/17/77	13	56	90.0	8.3	8.3	254.1
36	6/17/77	13	58	127.5	12.5	12.5	258.4
36	6/17/77	14	1	175.0	21.3	21.3	267.1
36	6/17/77	14	6	30.0	23.7	23.7	269.6
36	6/17/77	14	10	18.8	25.0	25.0	270.9
36	6/17/77	14	35	0.6	25.3	25.3	271.1
36	6/17/77	14	38	45.0	27.5	27.5	273.4
36	6/17/77	14	40	7.5	27.7	27.7	273.6
36	6/17/77	14	46	0.0	27.7	27.7	273.6
36	6/17/77	14	50	60.0	31.7	31.7	277.6
36	6/23/77	9	0	0.0	0.0	0.0	277.6
36	6/23/77	9	5	16.4	1.4	1.4	279.0
36	6/23/77	9	10	68.9	7.1	7.1	284.7
36	6/23/77	9	25	6.6	8.8	8.8	286.4
36	6/23/77	9	40	5.5	10.1	10.1	287.7
36	6/23/77	10	30	0.7	10.7	10.7	288.3
36	6/24/77			NO DATA	0.0	0.0	288.3
36	6/24/77			NO DATA	2.5	2.5	290.8
36	6/30/77			NO DATA	0.0	0.0	290.8
36	6/30/77			NO DATA	1.3	1.3	292.1

TABLE B1-12. CONTINUED

GAGE	DATE	HOUR	MIN	PRECIP INTENSITY MM/HR	ACCUMULATED STORM MM	PRECIPITATION DAY MM	PRECIPITATION YEAR MM
36	7/ 3/77	5	14	38.1	1.3	1.3	293.4
36	7/ 3/77	5	16	91.4	4.3	4.3	296.4
36	7/ 3/77	5	20	11.4	5.1	5.1	297.2
36	7/ 3/77	5	21	15.2	5.3	5.3	297.4
36	7/ 3/77	5	30	3.4	5.8	5.8	297.9
36	7/ 3/77	5	35	3.0	6.1	6.1	298.2
36	7/ 3/77	6	0	0.6	6.3	6.3	298.4
36	7/ 3/77	6	5	6.1	6.9	6.9	298.9
36	7/ 3/77	6	19	16.3	10.7	10.7	302.8
36	7/ 3/77	6	22	5.1	10.9	10.9	303.0
36	7/ 3/77	6	25	10.2	11.4	11.4	303.5
36	7/ 6/77	20	41	0.0	0.0	0.0	303.5
36	7/ 6/77	20	43	170.1	5.7	5.7	309.2
36	7/ 6/77	20	45	193.3	12.1	12.1	315.6
36	7/ 6/77	20	47	77.3	14.7	14.7	318.2
36	7/ 6/77	20	49	15.5	15.2	15.2	318.7
36	7/ 6/77	20	50	232.0	19.1	19.1	322.6
36	7/ 6/77	20	51	92.8	20.6	20.6	324.1
36	7/ 6/77	20	53	38.7	21.9	21.9	325.4
36	7/ 6/77	20	56	41.2	24.0	24.0	327.5
36	7/ 6/77	20	59	36.1	25.8	25.8	329.3
36	7/ 6/77	21	6	6.6	26.5	26.5	330.1
36	7/ 6/77	21	24	0.9	26.8	26.8	330.3
36	7/ 6/77	21	28	19.3	28.1	28.1	331.6
36	7/ 6/77	21	33	40.2	31.4	31.4	335.0
36	7/ 6/77	21	42	8.6	32.7	32.7	336.3
36	7/ 6/77	21	55	1.2	33.0	33.0	336.5
36	7/ 6/77	22	7	1.3	33.2	33.2	336.8
36	7/ 6/77	22	18	4.2	34.0	34.0	337.5
36	7/ 6/77	23	10	0.6	34.5	34.5	338.1
36	7/ 6/77	24	0	0.6	35.1	35.1	338.6
36	7/11/77			NO DATA	0.0	0.0	338.6
36	7/11/77			NO DATA	4.8	4.8	343.4
36	7/15/77	19	20	0.0	0.0	0.0	343.4
36	7/15/77	19	28	6.2	0.8	0.8	344.2
36	7/15/77	19	34	30.4	3.9	3.9	347.3
36	7/15/77	19	49	17.7	8.3	8.3	351.7
36	7/15/77	20	0	9.0	9.9	9.9	353.3
36	7/15/77	20	5	3.3	10.2	10.2	353.6
36	7/15/77	20	10	6.6	10.8	10.8	354.2
36	7/15/77	20	17	2.4	11.0	11.0	354.4
36	7/15/77	20	25	4.1	11.6	11.6	355.0
36	7/15/77	20	29	8.3	12.1	12.1	355.5
36	7/15/77	20	55	1.3	12.7	12.7	356.1
36	7/17/77	12	30	0.0	0.0	0.0	356.1
36	7/17/77	12	48	6.2	1.9	1.9	358.0
36	7/17/77	13	0	6.7	3.2	3.2	359.3
36	7/17/77	13	7	6.8	4.0	4.0	360.1
36	7/17/77	13	33	3.1	5.3	5.3	361.4
36	7/17/77	14	30	0.3	5.6	5.6	361.7
36	7/18/77	15	45	0.0	0.0	0.0	361.7
36	7/18/77	16	1	3.1	0.8	0.8	362.5
36	7/18/77	16	4	38.2	2.7	2.7	364.4
36	7/18/77	16	13	3.6	3.3	3.3	365.0
36	7/18/77	16	50	0.4	3.5	3.5	365.2
36	7/18/77	18	56	0.5	4.6	4.6	366.3
36	7/18/77	22	4	0.0	4.6	4.6	366.3
36	7/18/77	22	6	16.4	5.2	5.2	366.9
36	7/18/77	22	36	0.5	5.5	5.5	367.1
36	7/18/77	22	38	24.5	6.3	6.3	368.0
36	7/18/77	22	59	0.8	6.5	6.5	368.2
36	7/18/77	23	4	3.3	6.8	6.8	368.5
36	7/18/77	23	5	65.5	7.9	7.9	369.6
36	7/18/77	23	15	1.6	8.2	8.2	369.9
36	7/18/77	23	18	21.8	9.3	9.3	371.0
36	7/18/77	23	24	46.4	13.9	13.9	375.6
36	7/18/77	23	33	5.5	14.7	14.7	376.4
36	7/21/77			NO DATA	0.0	0.0	376.4
36	7/21/77			NO DATA	4.1	4.1	380.5
36	7/24/77			NO DATA	0.0	0.0	380.5
36	7/24/77			NO DATA	1.0	1.0	381.5
36	7/28/77	16	35	0.0	0.0	0.0	381.5
36	7/28/77	16	38	40.6	2.0	2.0	383.5
36	7/28/77	16	40	114.3	5.8	5.8	387.3
36	7/28/77	16	47	54.4	12.2	12.2	393.7
36	7/28/77	16	50	15.2	13.0	13.0	394.4
36	7/28/77	16	54	68.6	17.5	17.5	399.0
36	7/28/77	16	57	20.3	18.5	18.5	400.0
36	7/28/77	17	2	3.0	18.8	18.8	400.3
36	7/28/77	17	4	22.9	19.6	19.6	401.0
36	7/28/77	17	33	0.5	19.8	19.8	401.3
36	7/28/77	17	50	61.9	37.3	37.3	418.8
36	7/28/77	18	3	1.2	37.6	37.6	419.1
36	7/28/77	18	6	5.1	37.8	37.8	419.3
36	7/28/77	18	9	5.1	38.1	38.1	419.6
36	7/28/77	18	15	7.6	38.9	38.9	420.4
36	7/28/77	18	25	3.0	39.4	39.4	420.9
36	7/30/77			NO DATA	0.0	0.0	420.9
36	7/30/77			NO DATA	1.3	1.3	422.1
36	8/ 1/77			NO DATA	0.0	0.0	422.1
36	8/ 1/77			NO DATA	17.3	17.3	439.4
36	8/ 5/77	11	0	0.0	0.0	0.0	439.4
36	8/ 5/77	11	14	5.3	1.2	1.2	440.6

TABLE B1-12. CONTINUED

GAGE	DATE	HOUR	MIN	PRECIP INTENSITY MM/HR	ACCUMULATED STORM MM	PRECIPITATION DAY MM	PRECIPITATION YEAR MM
36	8/ 5/77	11	24	7.4	2.5	2.5	441.9
36	8/ 5/77	11	26	7.4	2.7	2.7	442.1
36	8/ 5/77	11	30	3.7	3.0	3.0	442.4
36	8/ 5/77	11	37	53.0	9.2	9.2	446.6
36	8/ 5/77	11	39	37.1	10.4	10.4	449.8
36	8/ 5/77	11	42	24.7	11.6	11.6	451.0
36	8/ 5/77	11	47	20.8	13.4	13.4	452.8
36	8/ 5/77	11	56	13.2	15.3	15.3	454.7
36	8/ 5/77	12	3	8.5	16.3	16.3	455.7
36	8/ 5/77	12	6	4.9	16.6	16.6	456.0
36	8/ 5/77	12	11	8.9	17.3	17.3	456.7
36	8/ 5/77	12	19	3.7	17.8	17.8	457.2
36	8/ 5/77	12	33	4.2	18.8	18.8	458.2
36	8/ 7/77	23	30	0.0	0.0	0.0	458.2
36	8/ 7/77	23	34	41.5	2.8	2.8	461.0
36	8/ 7/77	23	35	181.1	5.8	5.8	464.0
36	8/ 7/77	23	37	30.2	6.8	6.8	465.0
36	8/ 7/77	23	41	67.9	11.3	11.3	469.5
36	8/ 7/77	23	50	1.7	11.6	11.6	469.8
36	8/ 7/77	23	52	15.1	12.1	12.1	470.3
36	8/ 8/77	0	9	1.8	12.6	0.5	470.8
36	8/ 8/77	0	12	20.1	13.6	1.5	471.8
36	8/ 8/77	0	17	3.0	13.8	1.8	472.0
36	8/ 8/77	0	19	30.2	14.8	2.8	473.0
36	8/ 8/77	0	22	5.0	15.1	3.0	473.3
36	8/ 8/77	0	55	0.9	15.6	3.5	473.8
36	8/ 8/77	1	5	4.5	16.3	4.3	474.5
36	8/ 8/77	1	7	22.6	17.1	5.0	475.3
36	8/ 8/77	1	9	15.1	17.6	5.5	475.8
36	8/ 8/77	1	15	10.1	18.6	6.5	476.8
36	8/ 8/77	1	26	1.4	18.9	6.8	477.1
36	8/ 8/77	2	2	0.8	19.4	7.3	477.6
36	8/ 8/77	3	32	0.3	19.9	7.8	478.1
36	8/ 8/77	3	38	5.0	20.4	8.3	478.6
36	8/ 8/77	3	47	1.7	20.6	8.5	478.8
36	8/ 8/77	3	53	2.5	20.9	8.8	479.1
36	8/ 8/77	3	59	2.5	21.1	9.1	479.3
36	8/ 8/77	4	57	0.3	21.4	9.3	479.6
36	8/ 8/77	5	10	5.8	22.6	10.6	480.8
36	8/ 8/77	5	18	1.9	22.9	10.8	481.1
36	8/ 8/77	5	27	6.7	23.9	11.8	482.1
36	8/ 8/77	5	46	0.8	24.1	12.1	482.3
36	8/ 8/77	7	0	0.6	24.9	12.8	483.1
36	8/ 9/77	5	20	0.0	0.0	0.0	483.1
36	8/ 9/77	5	27	6.5	0.8	0.8	483.8
36	8/ 9/77	5	34	13.1	2.3	2.3	485.4
36	8/ 9/77	6	10	1.7	3.3	3.3	486.4
36	8/ 9/77	6	32	2.8	4.3	4.3	487.4
36	8/ 9/77	7	31	0.5	4.8	4.8	487.9
36	8/ 9/77	7	36	6.1	5.3	5.3	488.4
36	8/ 9/77	7	50	8.7	7.4	7.4	490.4
36	8/ 9/77	7	59	8.5	8.6	8.6	491.7
36	8/ 9/77	8	6	6.5	9.4	9.4	492.5
36	8/ 9/77	8	10	3.8	9.7	9.7	492.7
36	8/ 9/77	8	17	4.4	10.2	10.2	493.2
36	8/ 9/77	8	27	3.0	10.7	10.7	493.8
36	8/ 9/77	8	36	3.4	11.2	11.2	494.3
36	8/ 9/77	8	40	3.8	11.4	11.4	494.5
36	8/ 9/77	8	50	1.5	11.7	11.7	494.8
36	8/13/77			NO DATA	0.0	0.0	494.8
36	8/13/77			NO DATA	5.1	5.1	499.8
36	8/15/77	18	10	0.0	0.0	0.0	499.8
36	8/15/77	18	18	5.9	0.8	0.8	500.6
36	8/15/77	18	30	2.6	1.3	1.3	501.2
36	8/15/77	18	58	1.1	1.8	1.8	501.7
36	8/15/77	19	25	1.2	2.4	2.4	502.2
36	8/15/77	19	32	20.2	4.7	4.7	504.5
36	8/15/77	19	36	11.8	5.5	5.5	505.3
36	8/15/77	19	50	2.2	6.0	6.0	505.9
36	8/15/77	19	56	2.6	6.3	6.3	506.1
36	8/15/77	20	8	2.6	6.8	6.8	506.6
36	8/15/77	20	12	7.8	7.3	7.3	507.2
36	8/15/77	20	19	2.2	7.6	7.6	507.4
36	8/15/77	20	21	7.8	7.8	7.8	507.7
36	8/15/77	20	25	11.8	8.6	8.6	508.5
36	8/15/77	20	31	7.8	9.4	9.4	509.3
36	8/15/77	20	35	23.5	11.0	11.0	510.8
36	8/15/77	20	41	10.5	12.0	12.0	511.9
36	8/15/77	20	50	1.7	12.3	12.3	512.1
36	8/15/77	21	0	1.6	12.5	12.5	512.4
36	8/15/77	21	2	15.7	13.1	13.1	512.9
36	8/15/77	21	4	54.9	14.9	14.9	514.7
36	8/15/77	21	40	0.9	15.4	15.4	515.3
36	8/15/77	22	9	2.7	16.7	16.7	516.6
36	8/15/77	22	11	7.8	17.0	17.0	516.8
36	8/15/77	22	17	2.6	17.2	17.2	517.1
36	8/15/77	22	24	17.9	19.3	19.3	519.2
36	8/15/77	22	30	96.7	29.0	29.0	528.8
36	8/15/77	22	34	19.6	30.3	30.3	530.1
36	8/15/77	22	37	10.5	30.8	30.8	530.7
36	8/15/77	23	34	2.5	33.2	33.2	533.0
36	8/15/77	23	40	5.2	33.7	33.7	533.5
36	8/16/77	0	4	2.0	34.5	0.8	534.3
36	8/16/77	0	11	2.2	34.7	1.0	534.6
36	8/16/77	0	24	3.6	35.5	1.8	535.4
36	8/16/77	0	40	2.9	36.3	2.6	536.2
36	8/16/77	11	10	0.0	36.6	2.9	536.4
36	8/19/77			NO DATA	0.0	0.0	536.4
36	8/19/77			NO DATA	6.3	6.3	542.8

TABLE B1-12. CONTINUED

GAGE	DATE	HOUR	MIN	PRECIP INTENSITY MM/HR	ACCUMULATED STORM MM	PRECIPITATION DAY MM	PRECIPITATION YEAR MM
36	8/21/77			NO DATA	0.0	0.0	542.8
36	8/21/77			NO DATA	5.6	5.6	548.4
36	8/25/77	21	45	0.0	0.0	0.0	548.4
36	8/25/77	22	4	1.6	0.5	0.5	548.9
36	8/25/77	22	6	46.7	2.1	2.1	550.4
36	8/25/77	22	22	1.9	2.6	2.6	550.9
36	8/25/77	22	25	5.2	2.9	2.9	551.2
36	8/25/77	22	41	1.0	3.1	3.1	551.5
36	8/25/77	22	45	3.9	3.4	3.4	551.7
36	8/25/77	22	48	15.6	4.1	4.1	552.5
36	8/25/77	22	52	27.2	6.0	6.0	554.3
36	8/25/77	22	59	2.2	6.2	6.2	554.6
36	8/25/77	23	5	33.7	9.6	9.6	557.9
36	8/25/77	23	15	1.6	9.8	9.8	558.2
36	8/25/77	23	17	23.3	10.6	10.6	559.0
36	8/26/77	0	27	0.4	11.1	0.5	559.5
36	8/26/77	0	30	15.6	11.9	1.3	560.3
36	8/26/77	0	34	7.8	12.4	1.8	560.8
36	8/26/77	1	45	0.2	12.7	2.1	561.1
36	8/27/77	19	59	0.0	0.0	0.0	561.1
36	8/27/77	20	0	107.4	1.8	1.8	562.8
36	8/27/77	20	12	2.6	2.3	2.3	563.4
36	8/27/77	20	18	10.2	3.3	3.3	564.4
36	8/27/77	20	21	5.1	3.6	3.6	564.6
36	8/27/77	20	23	23.0	4.3	4.3	565.4
36	8/27/77	20	42	1.6	4.9	4.9	565.9
36	8/27/77	20	43	15.4	5.1	5.1	566.2
36	8/27/77	20	46	5.1	5.4	5.4	566.4
36	8/27/77	20	47	30.7	5.9	5.9	566.9
36	8/27/77	20	51	3.8	6.1	6.1	567.2
36	8/27/77	20	52	15.4	6.4	6.4	567.4
36	8/27/77	22	40	0.1	6.7	6.7	567.7
36	8/27/77	22	42	7.7	6.9	6.9	568.0
36	8/27/77	22	45	5.1	7.2	7.2	568.2
36	8/27/77	22	47	46.1	8.7	8.7	569.8
36	8/27/77	22	51	3.8	9.0	9.0	570.0
36	8/27/77	22	55	3.8	9.2	9.2	570.3
36	8/27/77	22	58	25.6	10.5	10.5	571.5
36	8/27/77	23	4	5.1	11.0	11.0	572.1
36	8/27/77	23	13	10.2	12.5	12.5	573.6
36	8/27/77	23	15	15.3	13.0	13.0	574.1
36	8/27/77	23	21	7.7	13.8	13.8	574.9
36	8/27/77	23	27	5.1	14.3	14.3	575.4
36	8/27/77	23	47	3.1	15.3	15.3	576.4
36	8/27/77	23	52	3.1	15.6	15.6	576.7
36	8/27/77	23	59	4.4	16.1	16.1	577.2
36	8/28/77	0	5	5.1	16.6	0.5	577.7
36	8/28/77	0	15	1.5	16.9	0.8	577.9
36	8/28/77	0	25	9.2	18.4	2.3	579.5
36	8/28/77	0	31	10.2	19.4	3.3	580.5
36	8/28/77	0	35	19.2	20.7	4.6	581.8
36	8/28/77	0	45	20.0	24.0	7.9	585.1
36	8/28/77	0	53	3.8	24.6	8.4	585.6
36	8/28/77	1	15	2.1	25.3	9.2	586.4
36	8/28/77	1	41	0.6	25.6	9.5	586.6
36	8/28/77	1	59	0.9	25.8	9.7	586.9
36	8/28/77	2	5	7.7	26.6	10.5	587.7
36	8/28/77	2	11	5.1	27.1	11.0	588.2
36	8/28/77	2	13	15.3	27.6	11.5	588.7
36	8/28/77	2	15	7.7	27.9	11.8	588.9
36	8/28/77	2	19	3.8	28.1	12.0	589.2
36	8/28/77	2	21	7.7	28.4	12.3	589.4
36	8/28/77	2	22	30.7	28.9	12.8	590.0
36	8/28/77	2	25	5.1	29.2	13.0	590.2
36	8/28/77	2	44	2.4	29.9	13.8	591.0
36	8/28/77	2	59	3.1	30.7	14.6	591.7
36	8/28/77	3	48	0.9	31.5	15.3	592.5
36	8/28/77	4	3	2.0	32.0	15.9	593.0
36	8/28/77	4	10	2.2	32.2	16.1	593.3
36	8/28/77	4	22	1.3	32.5	16.4	593.5
36	8/28/77	4	36	1.1	32.7	16.6	593.8
36	8/28/77	5	5	1.1	33.3	17.1	594.3
36	8/28/77	6	48	0.4	34.0	17.9	595.1
36	8/28/77	8	18	0.2	34.3	18.2	595.3
36	8/28/77	8	20	7.7	34.5	18.4	595.6
36	8/28/77	9	15	1.1	35.6	19.4	596.6
36	8/31/77	5	55	0.0	0.0	0.0	596.6
36	8/31/77	6	8	1.2	0.3	0.3	596.9
36	8/31/77	6	19	4.2	1.0	1.0	597.6
36	8/31/77	6	28	1.7	1.3	1.3	597.9
36	8/31/77	6	35	4.4	1.8	1.8	598.4
36	8/31/77	6	41	5.1	2.3	2.3	598.9
36	8/31/77	6	55	1.1	2.5	2.5	599.1
36	8/31/77	7	5	1.5	2.8	2.8	599.4
36	8/31/77	7	15	3.0	3.3	3.3	599.9
36	8/31/77	7	23	1.9	3.6	3.6	600.2
36	8/31/77	7	27	3.8	3.8	3.8	600.4
36	8/31/77	8	5	2.0	5.1	5.1	601.7
36	8/31/77	8	22	1.8	5.6	5.6	602.2
36	8/31/77	8	36	1.1	5.8	5.8	602.4
36	8/31/77	22	40	0.0	5.8	5.8	602.4
36	8/31/77	22	45	6.1	6.4	6.4	603.0
36	8/31/77	22	49	91.4	12.4	12.4	609.0
36	8/31/77	22	52	15.2	13.2	13.2	609.8
36	8/31/77	22	58	2.5	13.5	13.5	610.1
36	8/31/77	23	0	15.2	14.0	14.0	610.6
36	8/31/77	23	5	76.2	20.3	20.3	616.9
36	8/31/77	23	13	3.8	20.8	20.8	617.4
36	8/31/77	23	17	15.2	21.8	21.8	618.4
36	8/31/77	23	19	129.5	26.2	26.2	622.8
36	8/31/77	23	21	7.6	26.4	26.4	623.0

TABLE B1-12. CONTINUED

GAGE	DATE	HOUR	MIN	PRECIP INTENSITY MM/HR	ACCUMULATED PRECIPITATION STORM MM	DAY MM	YEAR MM
36	8/31/77	23	25	30.5	28.4	28.4	625.1
36	9/ 3/77	12	55	0.0	0.0	0.0	625.1
36	9/ 3/77	13	0	6.7	0.6	0.6	625.6
36	9/ 3/77	13	8	2.1	0.8	0.8	625.9
36	9/ 3/77	13	15	2.4	1.1	1.1	626.2
36	9/ 3/77	13	30	3.3	1.9	1.9	627.0
36	9/ 3/77	13	48	6.5	3.9	3.9	628.9
36	9/ 3/77	13	55	7.1	4.7	4.7	629.8
36	9/ 3/77	14	9	2.4	5.3	5.3	630.3
36	9/ 3/77	14	30	2.4	6.1	6.1	631.1
36	9/ 7/77			NO DATA	0.0	0.0	631.1
36	9/ 7/77			NO DATA	3.0	3.0	634.2
36	9/ 9/77			NO DATA	0.0	0.0	634.2
36	9/ 9/77			NO DATA	3.8	3.8	638.0
36	9/12/77			NO DATA	0.0	0.0	638.0
36	9/12/77			NO DATA	5.1	5.1	643.1
36	9/12/77			NO DATA	0.0	5.1	643.1
36	9/12/77			NO DATA	1.3	6.3	644.4
36	9/15/77	6	5	0.0	0.0	0.0	644.4
36	9/15/77	6	15	3.7	0.6	0.6	645.0
36	9/15/77	6	25	1.8	0.9	0.9	645.3
36	9/15/77	6	35	1.8	1.2	1.2	645.6
36	9/15/77	6	57	0.0	1.2	1.2	645.6
36	9/15/77	7	25	2.6	2.4	2.4	646.8
36	9/15/77	8	15	0.4	2.7	2.7	647.1
36	9/15/77	8	20	3.7	3.0	3.0	647.4
36	9/17/77	5	5	0.0	0.0	0.0	647.4
36	9/17/77	5	10	9.2	0.8	0.8	648.2
36	9/17/77	5	35	0.6	1.0	1.0	648.4
36	9/17/77	5	45	1.5	1.3	1.3	648.7
36	9/17/77	6	25	6.9	5.9	5.9	653.3
36	9/17/77	6	32	4.4	6.4	6.4	653.8
36	9/17/77	6	39	4.4	6.9	6.9	654.3
36	9/17/77	6	45	5.1	7.4	7.4	654.8
36	9/17/77	6	55	1.5	7.7	7.7	655.1
36	9/17/77	19	18	0.0	7.7	7.7	655.1
36	9/17/77	19	21	20.5	8.7	8.7	656.1
36	9/17/77	19	24	5.1	9.0	9.0	656.4
36	9/17/77	19	29	61.6	14.1	14.1	661.5
36	9/17/77	19	31	123.1	18.2	18.2	665.6
36	9/17/77	19	35	61.6	22.3	22.3	669.7
36	9/17/77	19	40	6.2	22.8	22.8	670.2
36	9/17/77	19	43	5.1	23.1	23.1	670.5
36	9/17/77	19	47	15.4	24.1	24.1	671.5
36	9/17/77	19	52	80.0	30.8	30.8	678.2
36	9/17/77	19	58	115.4	42.3	42.3	689.7
36	9/17/77	20	3	15.4	43.6	43.6	691.0
36	9/17/77	20	5	69.2	45.9	45.9	693.3
36	9/17/77	20	10	40.0	49.2	49.2	696.6
36	9/17/77	20	15	3.1	49.5	49.5	696.9
36	9/17/77	21	42	0.2	49.8	49.8	697.2
36	9/17/77	21	47	24.6	51.8	51.8	699.2
36	9/17/77	21	52	3.1	52.1	52.1	699.5
36	9/17/77	21	54	15.4	52.6	52.6	700.0
36	9/17/77	21	57	5.1	52.8	52.8	700.2
36	9/17/77	21	59	23.1	53.6	53.6	701.0
36	9/17/77	22	10	2.8	54.1	54.1	701.5
36	9/17/77	22	17	50.6	60.0	60.0	707.4
36	9/17/77	22	21	50.0	63.4	63.4	710.7
36	9/17/77	22	23	15.4	63.9	63.9	711.3
36	9/17/77	22	25	46.2	65.4	65.4	712.8
36	9/17/77	22	28	10.3	65.9	65.9	713.3
36	9/17/77	22	58	1.0	66.4	66.4	713.8
36	9/17/77	23	2	23.1	68.0	68.0	715.4
36	9/18/77	3	25	0.2	68.7	0.8	716.1
36	9/18/77	3	30	3.1	69.0	1.0	716.4
36	9/18/77	4	51	0.2	69.3	1.3	716.6
36	9/18/77	4	57	2.6	69.5	1.5	716.9
36	9/18/77	5	0	10.3	70.0	2.1	717.4
36	9/18/77	5	13	1.2	70.3	2.3	717.7
36	9/18/77	5	19	7.7	71.0	3.1	718.4
36	9/18/77	5	25	10.3	72.1	4.1	719.5
36	9/18/77	5	46	2.2	72.8	4.9	720.2
36	9/18/77	5	48	15.4	73.4	5.4	720.7
36	9/18/77	5	59	9.8	75.1	7.2	722.5
36	9/18/77	6	7	3.8	75.7	7.7	723.1
36	9/18/77	6	15	1.9	75.9	8.0	723.3
36	9/18/77	7	3	0.3	76.2	8.2	723.6
36	9/18/77	7	6	20.5	77.2	9.2	724.6
36	9/18/77	7	11	6.2	77.7	9.7	725.1
36	9/18/77	7	15	15.4	78.7	10.8	726.1
36	9/23/77	8	0	0.0	0.0	0.0	726.1
36	9/23/77	9	2	1.4	1.5	1.5	727.6
36	9/23/77	9	44	1.1	2.2	2.2	728.3
36	9/23/77	10	37	2.8	4.7	4.7	730.8
36	9/23/77	10	55	2.5	5.4	5.4	731.5
36	9/23/77	11	7	1.2	5.6	5.6	731.8
36	9/23/77	11	31	1.2	6.1	6.1	732.3
36	9/23/77	11	49	2.5	6.9	6.9	733.0
36	9/23/77	12	15	0.6	7.1	7.1	733.2
36	9/23/77	15	44	0.3	8.1	8.1	734.2
36	9/23/77	15	49	5.9	8.6	8.6	734.7
36	9/23/77	15	59	2.9	9.1	9.1	735.2
36	9/23/77	16	2	9.8	9.6	9.6	735.7
36	9/23/77	18	25	0.1	9.8	9.8	735.9
36	9/23/77	18	29	14.7	10.8	10.8	736.9

TABLE B1-12. CONTINUED

GAGE	DATE	HOUR	MIN	PRECIP INTENSITY MM/HR	ACCUMULATED STORM MM	PRECIPITATION DAY MM	PRECIPITATION YEAR MM
36	9/23/77	18	34	2.9	11.0	11.0	737.2
36	9/23/77	18	38	7.4	11.5	11.5	737.7
36	9/23/77	21	35	0.0	11.5	11.5	737.7
36	9/23/77	21	54	0.8	11.8	11.8	737.9
36	9/23/77	21	55	58.8	12.7	12.7	738.9
36	9/23/77	21	58	4.9	13.0	13.0	739.1
36	9/23/77	22	0	88.2	15.9	15.9	742.1
36	9/23/77	22	1	29.4	16.4	16.4	742.6
36	9/23/77	22	5	3.7	16.7	16.7	742.8
36	9/23/77	22	7	36.8	17.9	17.9	744.0
36	9/23/77	22	10	4.9	18.1	18.1	744.3
36	9/23/77	22	17	25.2	21.1	21.1	747.2
36	9/30/77	1	20	0.0	0.0	0.0	747.2
36	9/30/77	1	50	4.0	2.0	2.0	749.2
36	9/30/77	1	54	14.9	3.0	3.0	750.2
36	9/30/77	2	2	7.5	4.0	4.0	751.2
36	9/30/77	2	8	34.8	7.5	7.5	754.7
36	9/30/77	2	10	7.5	7.7	7.7	754.9
36	9/30/77	2	53	5.9	11.9	11.9	759.1
36	9/30/77	17	0	0.0	11.9	11.9	759.1
36	9/30/77	17	10	3.0	12.4	12.4	759.6
36	9/30/77	17	34	0.6	12.7	12.7	759.9
36	9/30/77	17	40	2.5	12.9	12.9	760.1
36	9/30/77	17	44	18.6	14.2	14.2	761.4
36	9/30/77	17	49	3.0	14.4	14.4	761.6
36	9/30/77	17	54	3.0	14.7	14.7	761.9
36	9/30/77	17	57	5.0	14.9	14.9	762.1
36	9/30/77	18	3	5.0	15.4	15.4	762.6
36	9/30/77	18	7	3.7	15.6	15.6	762.9
36	9/30/77	18	20	1.1	15.9	15.9	763.1
36	9/30/77	18	45	0.6	16.1	16.1	763.4
36	9/30/77	19	37	0.0	16.1	16.1	763.4
36	9/30/77	19	39	14.9	16.6	16.6	763.9
36	9/30/77	19	41	37.3	17.9	17.9	765.1
36	9/30/77	19	49	11.2	19.4	19.4	766.6
36	9/30/77	19	56	17.0	21.4	21.4	768.6
36	9/30/77	20	3	4.3	21.9	21.9	769.1
36	9/30/77	20	17	2.1	22.4	22.4	769.6
36	10/ 7/77	7	20	0.0	0.0	0.0	769.6
36	10/ 7/77	8	50	0.3	0.5	0.5	770.1
36	10/ 7/77	9	23	0.5	0.8	0.8	770.3
36	10/ 7/77	9	40	2.7	1.5	1.5	771.1
36	10/ 7/77	10	0	0.8	1.8	1.8	771.3
36	10/ 7/77	10	10	4.6	2.5	2.5	772.1
36	10/ 7/77	10	24	2.2	3.0	3.0	772.6
36	10/ 7/77	10	33	1.7	3.3	3.3	772.9
36	10/ 7/77	10	54	5.1	5.1	5.1	774.6
36	10/ 7/77	11	23	2.6	6.3	6.3	775.9
36	10/ 7/77	11	34	2.8	6.9	6.9	776.4
36	10/ 7/77	11	38	3.8	7.1	7.1	776.7
36	10/ 7/77	11	44	2.5	7.4	7.4	776.9
36	10/ 7/77	12	15	3.4	9.1	9.1	778.7
36	10/ 7/77	12	24	1.7	9.4	9.4	779.0
36	10/ 7/77	12	28	3.8	9.7	9.7	779.2
36	10/ 7/77	12	40	2.5	10.2	10.2	779.7
36	10/ 7/77	12	52	2.5	10.7	10.7	780.2
36	10/ 7/77	13	0	3.8	11.2	11.2	780.7
36	10/ 7/77	13	10	4.6	11.9	11.9	781.5
36	10/ 7/77	13	15	3.0	12.2	12.2	781.8
36	10/ 7/77	13	24	8.5	13.5	13.5	783.0
36	10/ 7/77	13	36	3.8	14.2	14.2	783.8
36	10/ 7/77	13	40	7.6	14.7	14.7	784.3
36	10/ 7/77	13	56	4.8	16.0	16.0	785.6
36	10/ 7/77	14	10	3.3	16.8	16.8	786.3
36	10/ 7/77	14	47	0.8	17.3	17.3	786.8
36	10/ 7/77	15	5	4.2	18.5	18.5	788.1
36	10/ 7/77	15	9	7.6	19.0	19.0	788.6
36	10/ 7/77	15	15	7.6	19.8	19.8	789.4
36	10/ 7/77	15	21	8.1	20.3	20.3	789.9
36	10/ 7/77	15	25	7.6	20.8	20.8	790.4
36	10/ 7/77	15	30	3.0	21.1	21.1	790.6
36	10/ 7/77	15	54	5.7	23.4	23.4	792.9
36	10/ 7/77	15	57	5.1	23.6	23.6	793.2
36	10/ 7/77	16	8	4.2	24.4	24.4	793.9
36	10/ 7/77	16	14	2.5	24.6	24.6	794.2
36	10/ 7/77	16	23	13.5	26.7	26.7	796.2
36	10/ 7/77	16	28	3.0	26.9	26.9	796.5
36	10/ 7/77	16	36	1.9	27.2	27.2	796.7
36	10/ 7/77	18	10	0.3	27.7	27.7	797.2
36	10/ 7/77	19	10	0.5	28.2	28.2	797.8
36	10/ 7/77	20	50	0.3	28.7	28.7	798.3
36	10/10/77	14	50	0.0	0.0	0.0	798.3
36	10/10/77	14	54	8.3	0.6	0.6	798.8
36	10/10/77	15	4	1.7	0.8	0.8	799.1
36	10/10/77	15	12	6.3	1.7	1.7	799.9
36	10/10/77	15	25	6.4	3.1	3.1	801.3
36	10/10/77	15	31	2.8	3.3	3.3	801.6
36	10/10/77	15	40	9.3	4.7	4.7	803.0
36	10/10/77	15	48	4.2	5.3	5.3	803.5
36	10/10/77	16	20	1.0	5.8	5.8	804.1
36	10/21/77			NO DATA	0.0	0.0	804.1
36	10/21/77			NO DATA	9.4	9.4	813.5
36	10/22/77			NO DATA	0.0	0.0	813.5
36	10/22/77			NO DATA	5.1	5.1	818.6
36	10/23/77			NO DATA	0.0	0.0	818.6
36	10/23/77			NO DATA	33.0	33.0	851.6
36	10/24/77			NO DATA	0.0	0.0	851.6

TABLE B1-12. CONCLUDED

GAGE	DATE	HOUR	MIN	PRECIP INTENSITY MM/HR	ACCUMULATED STORM MM	PRECIPITATION DAY MM	PRECIPITATION YEAR MM
36	10/24/77			NO DATA	6.1	6.1	857.7
36	10/30/77	21	50	0.0	0.0	0.0	857.7
36	10/30/77	22	0	3.4	0.6	0.6	858.3
36	10/30/77	22	33	0.5	0.8	0.8	858.5
36	10/30/77	22	40	4.9	1.4	1.4	859.1
36	10/31/77	1	0	0.5	2.5	1.1	860.2
36	10/31/77	2	0	1.7	4.2	2.8	861.9
36	10/31/77	2	7	2.4	4.5	3.1	862.2
36	10/31/77	3	8	1.1	5.7	4.2	863.4
36	10/31/77	3	34	2.0	6.5	5.1	864.2
36	10/31/77	3	41	4.9	7.1	5.7	864.8
36	10/31/77	4	12	2.7	8.5	7.1	866.2
36	10/31/77	4	44	1.6	9.3	7.9	867.0
36	10/31/77	9	10	0.1	9.9	8.5	867.6
36	11/ 1/77			NO DATA	0.0	0.0	867.6
36	11/ 1/77			NO DATA	1.3	1.3	868.9
36	11/ 1/77			NO DATA	0.0	1.3	868.9
36	11/ 1/77			NO DATA	2.3	3.6	871.2
36	11/ 3/77			NO DATA	0.0	0.0	871.2
36	11/ 3/77			NO DATA	2.5	2.5	873.7
36	11/ 9/77			NO DATA	0.0	0.0	873.7
36	11/ 9/77			NO DATA	2.3	2.3	876.0
36	11/20/77			NO DATA	0.0	0.0	876.0
36	11/20/77			NO DATA	5.1	5.1	881.1
36	11/23/77			SNOW	0.0	0.0	881.1
36	11/23/77			SNOW	8.1	8.1	889.2
36	11/25/77			SNOW	0.0	0.0	889.2
36	11/25/77			SNOW	5.1	5.1	894.3
36	11/27/77			SNOW	0.0	0.0	894.3
36	11/27/77			SNOW	1.0	1.0	895.3
36	11/30/77			SNOW	0.0	0.0	895.3
36	11/30/77			SNOW	3.0	3.0	898.3
36	12/ 5/77			SNOW	0.0	0.0	898.3
36	12/ 5/77			SNOW	17.3	17.3	915.6
36	12/ 8/77			SNOW	0.0	0.0	915.6
36	12/ 8/77			SNOW	1.0	1.0	916.6
36	12/ 9/77			SNOW	0.0	0.0	916.6
36	12/ 9/77			SNOW	1.0	1.0	917.6
36	12/17/77			SNOW	0.0	0.0	917.6
36	12/17/77			SNOW	10.2	10.2	927.8
36	12/19/77			SNOW	0.0	0.0	927.8
36	12/19/77			SNOW	2.0	2.0	929.8
36	12/20/77			SNOW	0.0	0.0	929.8
36	12/20/77			SNOW	2.0	2.0	931.9

TABLE B1-13. FOUR MILE CREEK WATERSHED PRECIPITATION DATA FOR 1978 GAGE 31

GAGE	DATE	HOUR	MIN	PRECIP INTENSITY MM/HR	ACCUMULATED PRECIPITATION STORM MM	DAY MM	YEAR MM
31	4/ 3/78			NO DATA	0.0	0.0	0.0
31	4/ 3/78			NO DATA	0.8	0.8	0.8
31	4/ 5/78	11	35	0.0	0.0	0.0	0.8
31	4/ 5/78	12	0	1.3	0.5	0.5	1.3
31	4/ 5/78	13	51	0.0	0.5	0.5	1.3
31	4/ 5/78	13	54	5.5	0.8	0.8	1.6
31	4/ 5/78	15	16	0.2	1.1	1.1	1.9
31	4/ 5/78	15	20	4.1	1.4	1.4	2.1
31	4/ 5/78	15	35	1.1	1.6	1.6	2.4
31	4/ 5/78	15	52	1.0	1.9	1.9	2.7
31	4/ 5/78	16	1	1.8	2.2	2.2	3.0
31	4/ 5/78	16	3	8.2	2.5	2.5	3.2
31	4/ 5/78	16	11	2.1	2.7	2.7	3.5
31	4/ 5/78	16	18	4.7	3.3	3.3	4.1
31	4/ 5/78	16	22	4.1	3.6	3.6	4.3
31	4/ 5/78	16	32	1.6	3.8	3.8	4.6
31	4/ 5/78	16	39	4.7	4.4	4.4	5.2
31	4/ 5/78	16	50	9.0	6.0	6.0	6.8
31	4/ 5/78	16	56	2.7	6.3	6.3	7.1
31	4/ 5/78	17	4	6.2	7.1	7.1	7.9
31	4/ 5/78	17	9	19.8	8.8	8.8	9.6
31	4/ 5/78	17	20	3.0	9.3	9.3	10.1
31	4/ 5/78	17	27	7.1	10.2	10.2	10.9
31	4/ 5/78	17	29	8.2	10.4	10.4	11.2
31	4/ 5/78	17	34	6.6	11.0	11.0	11.7
31	4/ 5/78	17	39	9.9	11.8	11.8	12.6
31	4/ 5/78	17	40	65.9	12.9	12.9	13.7
31	4/ 5/78	17	46	13.7	14.3	14.3	15.0
31	4/ 5/78	17	47	33.0	14.8	14.8	15.6
31	4/ 5/78	17	50	27.5	16.2	16.2	17.0
31	4/ 5/78	17	54	8.2	16.8	16.8	17.5
31	4/ 5/78	18	4	13.2	19.0	19.0	19.7
31	4/ 5/78	18	20	4.1	20.1	20.1	20.8
31	4/ 5/78	18	27	2.4	20.3	20.3	21.1
31	4/ 5/78	22	30	0.0	20.3	20.3	21.1
31	4/ 5/78	22	35	3.3	20.6	20.6	21.4
31	4/ 5/78	23	20	0.0	20.6	20.6	21.4
31	4/ 5/78	23	22	24.7	21.4	21.4	22.2
31	4/ 6/78	1	15	0.1	21.7	0.3	22.5
31	4/ 6/78	1	18	38.5	23.6	2.2	24.4
31	4/ 8/78			NO DATA	0.0	0.0	24.4
31	4/ 8/78			NO DATA	1.5	1.5	25.9
31	4/ 8/78			NO DATA	0.0	1.5	25.9
31	4/ 8/78			NO DATA	1.5	3.0	27.4
31	4/ 9/78	16	15	0.0	0.0	0.0	27.4
31	4/ 9/78	16	22	6.9	0.8	0.8	28.2
31	4/ 9/78	17	36	0.2	1.1	1.1	28.5
31	4/ 9/78	17	46	1.6	1.3	1.3	28.8
31	4/ 9/78	17	53	2.3	1.6	1.6	29.0
31	4/ 9/78	17	59	72.3	8.8	8.8	36.3
31	4/ 9/78	18	0	160.6	11.5	11.5	39.0
31	4/ 9/78	18	2	64.3	13.7	13.7	41.1
31	4/ 9/78	18	6	8.0	14.2	14.2	41.6
31	4/ 9/78	18	8	16.1	14.7	14.7	42.2
31	4/ 9/78	18	15	4.6	15.3	15.3	42.7
31	4/ 9/78	18	26	7.3	16.6	16.6	44.0
31	4/ 9/78	18	34	2.0	16.9	16.9	44.3
31	4/ 9/78	18	36	24.1	17.7	17.7	45.1
31	4/ 9/78	18	40	12.1	18.5	18.5	45.9
31	4/ 9/78	19	7	2.4	19.6	19.6	47.0
31	4/17/78	11	40	0.0	0.0	0.0	47.0
31	4/17/78	11	55	1.1	0.3	0.3	47.3
31	4/17/78	12	16	2.3	1.1	1.1	48.1
31	4/17/78	12	39	4.2	2.7	2.7	49.7
31	4/17/78	12	55	5.0	4.0	4.0	51.0
31	4/17/78	13	20	9.0	7.7	7.7	54.7
31	4/17/78	13	53	9.7	13.1	13.1	60.1
31	4/17/78	15	14	8.7	24.8	24.8	71.8
31	4/17/78	15	22	28.0	28.5	28.5	75.5
31	4/17/78	15	28	13.3	29.9	29.9	76.8
31	4/17/78	15	59	2.6	31.2	31.2	78.2
31	4/17/78	16	25	1.8	32.0	32.0	79.0
31	4/17/78	16	56	1.0	32.5	32.5	79.5
31	4/17/78	17	3	6.9	33.3	33.3	80.3
31	4/17/78	18	0	1.1	34.4	34.4	81.4
31	4/17/78	18	42	1.1	35.2	35.2	82.2
31	4/17/78	19	10	1.7	36.0	36.0	83.0
31	4/17/78	20	43	0.0	36.0	36.0	83.0
31	4/17/78	20	46	10.7	36.5	36.5	83.5
31	4/17/78	22	21	0.0	36.5	36.5	83.5
31	4/17/78	22	35	5.7	37.9	37.9	84.8
31	4/17/78	22	42	11.4	39.2	39.2	86.2
31	4/17/78	22	44	56.0	41.1	41.1	88.0
31	4/17/78	23	10	9.8	45.3	45.3	92.3
31	4/17/78	23	40	9.1	49.9	49.9	96.8
31	4/17/78	24	0	8.0	52.5	52.5	99.5
31	4/18/78	0	20	6.4	54.6	2.1	101.6
31	4/18/78	0	40	5.6	56.5	4.0	103.5
31	4/18/78	3	50	0.1	56.8	4.3	103.8
31	4/18/78	4	9	0.8	57.0	4.5	104.0
31	4/18/78	4	24	2.1	57.6	5.1	104.6
31	4/18/78	4	28	4.0	57.8	5.3	104.8
31	4/18/78	5	2	0.9	58.4	5.9	105.4
31	4/18/78	6	50	0.4	59.2	6.7	106.2
31	4/18/78	12	5	0.0	0.0	6.7	106.2
31	4/18/78	12	20	2.0	0.5	7.2	106.7
31	4/18/78	16	5	0.1	1.0	7.7	107.2
31	4/18/78	16	33	1.1	1.5	8.2	107.7

TABLE B1-13. CONTINUED

GAGE	DATE	HOUR	MIN	PRECIP INTENSITY MM/HR	ACCUMULATED STORM MM	PRECIPITATION DAY MM	PRECIPITATION YEAR MM
31	4/18/78	17	30	1.1	2.5	9.2	108.7
31	4/18/78	18	0	1.0	3.0	9.7	109.2
31	4/18/78	18	30	1.0	3.6	10.2	109.7
31	4/18/78	19	48	0.4	4.1	10.7	110.2
31	4/18/78	20	0	1.3	4.3	11.0	110.5
31	4/18/78	21	41	0.2	4.6	11.2	110.7
31	4/18/78	21	46	3.0	4.8	11.5	111.0
31	4/18/78	22	11	1.2	5.3	12.0	111.5
31	4/18/78	22	15	3.8	5.6	12.3	111.8
31	4/18/78	23	24	0.2	5.8	12.5	112.0
31	4/18/78	23	28	3.8	6.1	12.8	112.3
31	4/18/78	23	40	1.3	6.3	13.0	112.5
31	4/19/78			NO DATA	0.0	0.0	112.5
31	4/19/78			NO DATA	1.3	1.3	113.8
31	4/20/78			NO DATA	0.0	0.0	113.8
31	4/20/78			NO DATA	1.3	1.3	115.1
31	4/22/78			NO DATA	0.0	0.0	115.1
31	4/22/78			NO DATA	5.1	5.1	120.1
31	5/ 7/78	0	10	0.0	0.0	0.0	120.1
31	5/ 7/78	0	25	4.3	1.1	1.1	121.2
31	5/ 7/78	0	55	5.4	3.8	3.8	123.9
31	5/ 7/78	1	8	3.8	4.6	4.6	124.8
31	5/ 7/78	1	30	3.0	5.7	5.7	125.8
31	5/ 7/78	1	55	7.2	8.7	8.7	128.8
31	5/ 7/78	2	8	5.0	9.8	9.8	129.9
31	5/ 7/78	2	30	3.0	10.9	10.9	131.0
31	5/ 7/78	2	40	1.6	11.1	11.1	131.3
31	5/ 7/78	3	40	0.5	11.7	11.7	131.8
31	5/ 7/78	22	15	0.0	0.0	11.7	131.8
31	5/ 7/78	22	20	11.4	0.9	12.6	132.8
31	5/ 7/78	22	45	1.5	1.6	13.3	133.4
31	5/ 7/78	22	54	10.5	3.2	14.8	135.0
31	5/ 7/78	23	1	5.4	3.8	15.5	135.6
31	5/ 7/78	23	15	2.7	4.4	16.1	136.2
31	5/ 7/78	23	23	9.5	5.7	17.4	137.5
31	5/ 7/78	23	43	2.8	6.6	18.3	138.5
31	5/ 8/78	0	6	0.8	6.9	0.3	138.8
31	5/ 8/78	0	15	10.5	8.5	1.9	140.3
31	5/ 8/78	0	38	4.9	10.4	3.8	142.2
31	5/12/78	19	54	0.0	0.0	0.0	142.2
31	5/12/78	20	11	1.9	0.5	0.5	142.8
31	5/12/78	20	30	3.3	1.6	1.6	143.8
31	5/12/78	20	48	6.1	3.4	3.4	145.7
31	5/12/78	21	1	3.6	4.2	4.2	146.5
31	5/12/78	21	27	2.4	5.3	5.3	147.5
31	5/12/78	21	39	17.1	8.7	8.7	150.9
31	5/12/78	22	39	2.1	10.8	10.8	153.0
31	5/12/78	23	14	1.8	11.8	11.8	154.1
31	5/12/78	23	41	2.3	12.9	12.9	155.1
31	5/12/78	23	59	4.4	14.2	14.2	156.5
31	5/13/78	0	17	3.5	15.3	1.1	157.5
31	5/13/78	0	54	3.4	17.4	3.2	159.6
31	5/13/78	1	0	5.3	17.9	3.7	160.1
31	5/13/78	1	4	3.9	18.2	3.9	160.4
31	5/13/78	1	6	15.8	18.7	4.5	160.9
31	5/13/78	1	15	8.8	20.0	5.8	162.2
31	5/13/78	1	20	3.2	20.3	6.1	162.5
31	5/13/78	1	40	6.3	22.4	8.2	164.6
31	5/13/78	2	4	3.9	24.0	9.7	166.2
31	5/13/78	2	19	1.1	24.2	10.0	166.5
31	5/13/78	2	41	3.6	25.5	11.3	167.8
31	5/13/78	2	46	6.3	26.1	11.8	168.3
31	5/13/78	2	57	4.3	26.9	12.6	169.1
31	5/13/78	3	2	6.3	27.4	13.2	169.6
31	5/13/78	3	25	4.8	29.2	15.0	171.5
31	5/13/78	3	29	7.9	29.7	15.5	172.0
31	5/13/78	3	37	3.9	30.3	16.1	172.5
31	5/13/78	3	49	7.9	31.9	17.6	174.1
31	5/13/78	4	4	3.2	32.6	18.4	174.9
31	5/13/78	4	44	2.0	34.0	19.7	176.2
31	5/13/78	5	21	0.9	34.5	20.3	176.7
31	5/13/78	6	54	1.0	36.1	21.9	178.3
31	5/22/78			NO DATA	0.0	0.0	178.3
31	5/22/78			NO DATA	1.0	1.0	179.3
31	5/27/78			NO DATA	0.0	0.0	179.3
31	5/27/78			NO DATA	3.0	3.0	182.4
31	5/31/78			NO DATA	0.0	0.0	182.4
31	5/31/78			NO DATA	10.4	10.4	192.8
31	6/ 1/78			NO DATA	0.0	0.0	192.8
31	6/ 1/78			NO DATA	5.1	5.1	197.9
31	6/ 6/78			NO DATA	0.0	0.0	197.9
31	6/ 6/78			NO DATA	0.5	0.5	198.4
31	6/14/78	12	15	0.0	0.0	0.0	198.4
31	6/14/78	12	30	1.1	0.3	0.3	198.6
31	6/14/78	12	43	2.4	0.8	0.8	199.2
31	6/14/78	12	50	6.8	1.6	1.6	199.9
31	6/14/78	13	13	5.5	3.7	3.7	202.0
31	6/14/78	13	50	5.1	6.8	6.8	205.2
31	6/14/78	14	8	1.8	7.4	7.4	205.7
31	6/14/78	14	25	0.9	7.6	7.6	206.0
31	6/15/78	1	4	0.0	0.0	0.0	206.0

TABLE B1-13. CONTINUED

GAGE	DATE	HOUR	MIN	PRECIP INTENSITY MM/HR	ACCUMULATED STORM MM	PRECIPITATION DAY MM	PRECIPITATION YEAR MM
31	6/15/78	1	6	30.5	1.0	1.0	207.0
31	6/15/78	1	12	5.1	1.5	1.5	207.5
31	6/15/78	1	16	11.4	2.3	2.3	208.3
31	6/15/78	1	27	1.4	2.5	2.5	208.5
31	6/15/78	1	30	20.3	3.6	3.6	209.5
31	6/15/78	1	32	22.9	4.3	4.3	210.3
31	6/15/78	1	35	66.0	7.6	7.6	213.6
31	6/15/78	1	36	76.2	8.9	8.9	214.9
31	6/15/78	1	38	22.9	9.7	9.7	215.6
31	6/15/78	1	42	7.6	10.2	10.2	216.2
31	6/15/78	1	47	39.6	13.5	13.5	219.5
31	6/15/78	1	49	15.2	14.0	14.0	220.0
31	6/15/78	1	51	7.6	14.2	14.2	220.2
31	6/15/78	1	52	15.2	14.5	14.5	220.5
31	6/15/78	2	0	1.9	14.7	14.7	220.7
31	6/15/78	2	6	7.6	15.5	15.5	221.5
31	6/15/78	2	10	3.8	15.7	15.7	221.7
31	6/15/78	2	16	5.1	16.3	16.3	222.2
31	6/15/78	2	27	8.3	17.8	17.8	223.8
31	6/15/78	2	39	3.8	18.5	18.5	224.5
31	6/15/78	2	43	7.6	19.0	19.0	225.0
31	6/15/78	2	52	3.4	19.6	19.6	225.5
31	6/15/78	3	26	1.8	20.6	20.6	226.6
31	6/15/78	3	27	30.5	21.1	21.1	227.1
31	6/15/78	3	35	1.9	21.3	21.3	227.3
31	6/15/78	3	40	3.0	21.6	21.6	227.6
31	6/15/78	4	1	0.7	21.8	21.8	227.8
31	6/15/78	4	13	1.3	22.1	22.1	228.1
31	6/15/78	4	40	1.7	22.9	22.9	228.9
31	6/17/78			NO DATA	0.0	0.0	228.9
31	6/17/78			NO DATA	3.8	3.8	232.7
31	6/20/78	0	21	0.0	0.0	0.0	232.7
31	6/20/78	0	26	33.2	2.8	2.8	235.4
31	6/20/78	0	30	56.7	6.5	6.5	239.2
31	6/20/78	0	33	25.2	7.8	7.8	240.5
31	6/20/78	0	37	3.8	8.1	8.1	240.7
31	6/20/78	0	40	15.1	8.8	8.8	241.5
31	6/20/78	0	50	9.1	10.3	10.3	243.0
31	6/20/78	0	53	25.2	11.6	11.6	244.2
31	6/20/78	1	4	13.7	14.1	14.1	246.8
31	6/20/78	1	12	9.4	15.4	15.4	248.0
31	6/20/78	1	16	15.1	16.4	16.4	249.0
31	6/20/78	1	24	9.4	17.6	17.6	250.3
31	6/20/78	1	41	2.7	18.4	18.4	251.0
31	6/20/78	1	46	9.1	19.1	19.1	251.8
31	6/20/78	1	50	7.6	19.6	19.6	252.3
31	6/20/78	1	52	22.7	20.4	20.4	253.1
31	6/20/78	1	55	10.1	20.9	20.9	253.6
31	6/20/78	2	26	8.3	25.2	25.2	257.8
31	6/20/78	2	40	4.3	26.2	26.2	258.8
31	6/20/78	2	52	2.5	26.7	26.7	259.4
31	6/20/78	3	20	1.6	27.4	27.4	260.1
31	6/20/78	4	7	0.6	28.0	28.0	260.6
31	6/20/78	4	15	3.8	28.5	28.5	261.1
31	6/20/78	4	18	5.0	28.7	28.7	261.4
31	6/20/78	4	25	2.2	29.0	29.0	261.6
31	6/20/78	4	35	1.5	29.2	29.2	261.9
31	6/23/78			NO DATA	0.0	0.0	261.9
31	6/23/78			NO DATA	1.0	1.0	262.9
31	6/26/78			NO DATA	0.0	0.0	262.9
31	6/26/78			NO DATA	0.8	0.8	263.6
31	6/28/78			NO DATA	0.0	0.0	263.6
31	6/28/78			NO DATA	0.3	0.3	263.9
31	7/ 2/78			NO DATA	0.0	0.0	263.9
31	7/ 2/78			NO DATA	3.6	3.6	267.5
31	7/ 6/78	1	24	0.0	0.0	0.0	267.5
31	7/ 6/78	1	29	6.4	0.5	0.5	268.0
31	7/ 6/78	1	41	2.7	1.1	1.1	268.5
31	7/ 6/78	1	45	16.1	2.1	2.1	269.6
31	7/ 6/78	1	50	32.2	4.8	4.8	272.3
31	7/ 6/78	1	54	8.1	5.4	5.4	272.8
31	7/ 6/78	2	0	2.7	5.6	5.6	273.1
31	7/ 6/78	2	7	2.3	5.9	5.9	273.4
31	7/ 6/78	2	10	5.4	6.2	6.2	273.6
31	7/ 6/78	3	4	0.3	6.4	6.4	273.9
31	7/ 6/78	3	17	1.2	6.7	6.7	274.2
31	7/ 6/78	3	27	4.8	7.5	7.5	275.0
31	7/ 6/78	3	46	1.7	8.1	8.1	275.5
31	7/ 6/78	3	49	10.1	8.9	8.9	276.3
31	7/ 6/78	3	57	4.0	9.4	9.4	276.9
31	7/ 6/78	22	24	0.0	0.0	9.4	276.9
31	7/ 6/78	22	34	4.4	0.7	10.1	277.6
31	7/ 6/78	23	20	0.6	1.2	10.6	278.1
31	7/ 6/78	23	49	1.5	1.9	11.3	278.8
31	7/ 7/78	1	57	0.2	2.4	0.5	279.3
31	7/ 7/78	2	40	2.7	4.4	2.4	281.2
31	7/ 7/78	2	54	3.1	5.1	3.1	281.9
31	7/ 8/78	23	30	0.0	0.0	0.0	281.9
31	7/ 8/78	23	35	23.4	1.9	1.9	283.9
31	7/ 8/78	23	46	4.0	2.7	2.7	284.6
31	7/ 8/78	23	53	4.2	3.2	3.2	285.1
31	7/ 9/78	2	0	1.3	5.8	2.7	287.8
31	7/12/78			NO DATA	0.0	0.0	287.8
31	7/12/78			NO DATA	5.1	5.1	292.9

TABLE B1-13. CONTINUED

GAGE	DATE	HOUR	MIN	PRECIP INTENSITY MM/HR	ACCUMULATED STORM MM	PRECIPITATION DAY MM	PRECIPITATION YEAR MM
31	7/17/78	5	17	0.0	0.0	0.0	292.9
31	7/17/78	5	20	11.0	0.5	0.5	293.4
31	7/17/78	5	39	0.9	0.8	0.8	293.7
31	7/17/78	5	42	22.0	1.9	1.9	294.8
31	7/17/78	5	57	1.1	2.2	2.2	295.0
31	7/17/78	6	0	16.5	3.0	3.0	295.9
31	7/17/78	6	11	1.5	3.3	3.3	296.1
31	7/17/78	6	13	8.2	3.6	3.6	296.4
31	7/17/78	6	26	1.3	3.8	3.8	296.7
31	7/17/78	6	30	16.5	4.9	4.9	297.8
31	7/17/78	6	37	2.4	5.2	5.2	298.1
31	7/17/78	6	39	24.7	6.0	6.0	298.9
31	7/17/78	6	45	8.2	6.9	6.9	299.7
31	7/17/78	6	57	1.4	7.1	7.1	300.0
31	7/17/78	7	0	5.5	7.4	7.4	300.3
31	7/17/78	7	45	0.4	7.7	7.7	300.5
31	7/17/78	8	0	1.1	8.0	8.0	300.8
31	7/17/78	10	46	0.1	8.2	8.2	301.1
31	7/17/78	10	48	8.2	8.5	8.5	301.4
31	7/17/78	11	22	1.0	9.1	9.1	301.9
31	7/17/78	11	28	5.5	9.6	9.6	302.5
31	7/17/78	12	0	1.0	10.2	10.2	303.0
31	7/18/78	4	30	0.0	0.0	0.0	303.0
31	7/18/78	4	50	0.8	0.3	0.3	303.3
31	7/18/78	5	0	4.6	1.0	1.0	304.0
31	7/18/78	5	23	1.3	1.5	1.5	304.5
31	7/18/78	5	35	3.8	2.3	2.3	305.3
31	7/18/78	5	45	1.5	2.5	2.5	305.5
31	7/18/78	6	6	3.6	3.8	3.8	306.8
31	7/18/78	6	13	6.5	4.6	4.6	307.6
31	7/18/78	6	17	45.7	7.6	7.6	310.6
31	7/18/78	6	23	12.7	8.9	8.9	311.9
31	7/18/78	7	0	3.3	10.9	10.9	313.9
31	7/18/78	7	10	3.0	11.4	11.4	314.4
31	7/18/78	20	26	0.0	0.0	11.4	314.4
31	7/18/78	20	28	37.1	1.2	12.7	315.7
31	7/18/78	20	30	89.1	4.2	15.6	318.6
31	7/18/78	20	33	74.3	7.9	19.3	322.4
31	7/18/78	20	36	49.5	10.4	21.8	324.8
31	7/18/78	20	37	74.3	11.6	23.1	326.1
31	7/18/78	20	39	37.1	12.9	24.3	327.3
31	7/18/78	20	42	44.5	15.1	26.5	329.5
31	7/18/78	20	53	4.0	15.8	27.3	330.3
31	7/18/78	21	7	1.1	16.1	27.5	330.5
31	7/18/78	21	11	7.4	16.6	28.0	331.0
31	7/18/78	21	20	1.6	16.8	28.3	331.3
31	7/18/78	21	29	1.7	17.1	28.5	331.5
31	7/18/78	21	42	3.4	17.8	29.2	332.3
31	7/18/78	21	50	1.9	18.1	29.5	332.5
31	7/18/78	21	58	7.4	19.1	30.5	333.5
31	7/18/78	22	19	2.8	20.0	31.5	334.5
31	7/18/78	22	32	1.1	20.3	31.7	334.7
31	7/18/78	22	50	0.8	20.5	32.0	335.0
31	7/19/78	1	49	0.1	20.8	0.2	335.2
31	7/19/78	1	51	59.4	22.8	2.2	337.2
31	7/19/78	1	56	41.6	26.2	5.7	340.7
31	7/19/78	1	58	7.4	26.5	5.9	340.9
31	7/19/78	3	43	0.0	26.5	5.9	340.9
31	7/19/78	3	45	44.5	28.0	7.4	342.4
31	7/19/78	6	30	0.1	28.2	7.7	342.6
31	7/19/78	7	0	1.5	29.0	8.4	343.4
31	7/20/78			NO DATA	0.0	0.0	343.4
31	7/20/78			NO DATA	2.5	2.5	345.9
31	7/21/78			NO DATA	0.0	0.0	345.9
31	7/21/78			NO DATA	3.0	3.0	349.0
31	7/22/78			NO DATA	0.0	0.0	349.0
31	7/22/78			NO DATA	1.8	1.8	350.8
31	7/26/78			NO DATA	0.0	0.0	350.8
31	7/26/78			NO DATA	7.6	7.6	358.4
31	8/15/78			NO DATA	0.0	0.0	358.4
31	8/15/78			NO DATA	1.3	1.3	359.6
31	8/17/78			NO DATA	0.0	0.0	359.6
31	8/17/78			NO DATA	6.3	6.3	366.0
31	8/21/78	11	30	0.0	0.0	0.0	366.0
31	8/21/78	11	37	2.3	0.3	0.3	366.3
31	8/21/78	11	40	10.6	0.8	0.8	366.8
31	8/21/78	11	58	1.8	1.3	1.3	367.3
31	8/21/78	12	24	8.0	4.8	4.8	370.8
31	8/21/78	12	34	1.6	5.0	5.0	371.0
31	8/21/78	12	41	2.3	5.3	5.3	371.3
31	8/21/78	12	46	6.4	5.8	5.8	371.8
31	8/21/78	12	57	4.3	6.6	6.6	372.6
31	8/21/78	13	16	1.7	7.2	7.2	373.2
31	8/21/78	13	35	3.3	8.2	8.2	374.2
31	8/21/78	13	40	6.4	8.8	8.8	374.7
31	8/21/78	14	0	1.6	9.3	9.3	375.3
31	8/21/78	14	6	2.7	9.5	9.5	375.5
31	8/21/78	14	16	1.6	9.8	9.8	375.8
31	8/21/78	14	18	23.9	10.6	10.6	376.6
31	8/21/78	14	28	4.8	11.4	11.4	377.4
31	8/21/78	14	31	5.3	11.7	11.7	377.7
31	8/21/78	14	33	8.0	11.9	11.9	377.9
31	8/21/78	14	34	63.6	13.0	13.0	379.0
31	8/21/78	14	36	8.0	13.3	13.3	379.3
31	8/21/78	14	37	79.6	14.6	14.6	380.6

TABLE B1-13. CONTINUED

GAGE	DATE	HOUR	MIN	PRECIP INTENSITY MM/HR	ACCUMULATED STORM MM	PRECIPITATION DAY MM	YEAR MM
31	8/21/78	14	39	39.8	15.9	15.9	381.9
31	8/21/78	14	45	26.5	18.6	18.6	384.6
31	8/21/78	14	55	8.0	19.9	19.9	385.9
31	8/21/78	15	2	11.4	21.2	21.2	387.2
31	8/21/78	15	11	5.3	22.0	22.0	388.0
31	8/21/78	15	15	19.9	23.3	23.3	389.3
31	8/21/78	15	25	4.8	24.1	24.1	390.1
31	8/21/78			NO DATA	0.0	24.1	390.1
31	8/21/78			NO DATA	1.5	25.7	391.6
31	8/22/78			NO DATA	0.0	0.0	391.6
31	8/22/78			NO DATA	1.8	1.8	393.4
31	8/26/78	5	43	0.0	0.0	0.0	393.4
31	8/26/78	5	47	15.8	1.1	1.1	394.5
31	8/26/78	5	58	4.3	1.8	1.8	395.3
31	8/26/78	6	2	4.0	2.1	2.1	395.5
31	8/26/78	6	7	3.2	2.4	2.4	395.8
31	8/26/78	6	39	1.5	3.2	3.2	396.6
31	8/26/78	14	22	0.0	3.2	3.2	396.6
31	8/26/78	14	24	31.7	4.2	4.2	397.7
31	8/26/78	14	27	10.6	4.8	4.8	398.2
31	8/26/78	14	30	21.1	5.8	5.8	399.2
31	8/26/78	14	31	79.2	7.1	7.1	400.6
31	8/26/78	14	33	55.5	9.0	9.0	402.4
31	8/26/78	14	36	26.4	10.3	10.3	403.7
31	8/26/78	16	6	0.2	10.6	10.6	404.0
31	8/26/78	16	8	15.8	11.1	11.1	404.5
31	8/26/78	18	33	0.1	11.4	11.4	404.8
31	8/26/78	18	38	6.3	11.9	11.9	405.3
31	8/26/78	18	42	23.8	13.5	13.5	406.9
31	8/26/78	18	57	1.1	13.7	13.7	407.2
31	8/26/78	19	0	26.4	15.1	15.1	408.5
31	8/26/78	19	2	7.9	15.3	15.3	408.7
31	8/26/78	19	4	47.5	16.9	16.9	410.3
31	8/26/78	19	6	79.3	19.5	19.5	413.0
31	8/26/78	19	14	59.4	27.5	27.5	420.9
31	8/26/78	19	21	97.3	38.8	38.8	432.2
31	8/26/78	19	24	15.8	39.6	39.6	433.0
31	8/26/78	19	34	3.2	40.1	40.1	433.6
31	8/26/78	20	14	0.8	40.7	40.7	434.1
31	8/26/78	20	18	31.7	42.8	42.8	436.2
31	8/26/78	20	24	66.0	49.4	49.4	442.8
31	8/26/78	20	35	50.4	58.6	58.6	452.1
31	8/26/78	20	39	99.0	65.2	65.2	458.7
31	8/26/78	20	41	95.1	68.4	68.4	461.8
31	8/26/78	20	48	40.7	73.2	73.2	466.6
31	8/26/78	20	52	11.9	73.9	73.9	467.4
31	8/26/78	20	59	6.8	74.7	74.7	468.2
31	8/26/78	21	4	19.0	76.3	76.3	469.7
31	8/26/78	21	9	9.5	77.1	77.1	470.5
31	8/26/78	21	16	22.6	79.8	79.8	473.2
31	8/26/78	21	30	11.3	82.4	82.4	475.8
31	8/26/78	21	34	7.9	82.9	82.9	476.3
31	8/26/78	21	39	6.3	83.5	83.5	476.9
31	8/26/78	21	52	1.2	83.7	83.7	477.1
31	8/26/78	21	54	15.8	84.2	84.2	477.7
31	8/26/78	22	1	6.8	85.0	85.0	478.5
31	8/26/78	22	16	2.1	85.6	85.6	479.0
31	8/26/78	22	24	2.0	85.8	85.8	479.3
31	8/26/78	22	34	6.3	86.9	86.9	480.3
31	8/26/78	22	54	6.3	89.0	89.0	482.4
31	8/26/78	23	4	6.3	90.1	90.1	483.5
31	8/26/78	23	14	9.5	91.6	91.6	485.1
31	8/26/78	23	31	5.6	93.2	93.2	486.6
31	8/26/78	23	39	7.9	94.3	94.3	487.7
31	8/26/78	23	59	3.2	95.3	95.3	488.8
31	8/27/78	0	32	1.9	96.4	1.1	489.8
31	8/27/78	6	4	0.0	96.4	1.1	489.8
31	8/27/78	7	4	0.5	96.9	1.6	490.3
31	8/27/78	11	6	0.0	96.9	1.6	490.3
31	8/27/78	11	10	15.8	98.0	2.6	491.4
31	8/27/78	11	15	12.7	99.0	3.7	492.5
31	8/27/78	11	24	3.5	99.6	4.2	493.0
31	8/27/78			NO DATA	0.0	4.2	493.0
31	8/27/78			NO DATA	0.5	4.7	493.5
31	9/12/78	20	50	0.0	0.0	0.0	493.5
31	9/12/78	20	54	35.9	2.4	2.4	495.9
31	9/12/78	22	31	0.7	3.5	3.5	496.9
31	9/12/78	22	35	15.9	4.5	4.5	498.0
31	9/12/78	22	41	2.7	4.8	4.8	498.3
31	9/12/78	22	48	4.6	5.3	5.3	498.8
31	9/12/78	22	49	111.6	7.2	7.2	500.7
31	9/12/78	22	51	47.9	8.8	8.8	502.3
31	9/12/78	22	55	12.0	9.6	9.6	503.1
31	9/12/78	23	3	57.8	17.3	17.3	510.8
31	9/12/78	23	7	27.9	19.1	19.1	512.6
31	9/12/78	23	12	31.9	21.8	21.8	515.3
31	9/12/78	23	18	5.3	22.3	22.3	515.8
31	9/12/78	23	22	8.0	22.9	22.9	516.4
31	9/12/78	23	40	0.9	23.1	23.1	516.6
31	9/12/78	23	50	8.0	24.5	24.5	517.9
31	9/13/78	0	10	0.8	24.7	0.3	518.2
31	9/13/78	0	12	8.0	25.0	0.5	518.5
31	9/13/78	0	14	23.9	25.8	1.3	519.3
31	9/13/78	0	24	15.9	28.4	4.0	521.9
31	9/13/78	0	28	4.0	28.7	4.3	522.2
31	9/13/78	0	35	13.7	30.3	5.8	523.8
31	9/13/78	0	40	6.4	30.8	6.4	524.3
31	9/13/78	1	0	0.8	31.1	6.6	524.6
31	9/13/78	1	52	0.0	31.1	6.6	524.6

TABLE B1-13. CONTINUED

GAGE	DATE	HOUR	MIN	PRECIP INTENSITY MM/HR	ACCUMULATED STORM MM	PRECIPITATION DAY MM	PRECIPITATION YEAR MM
31	9/13/78	1	55	5.3	31.4	6.9	524.9
31	9/13/78	2	40	0.4	31.6	7.2	525.1
31	9/13/78	2	52	1.3	31.9	7.4	525.4
31	9/13/78	3	10	0.9	32.2	7.7	525.7
31	9/13/78	3	12	8.0	32.4	8.0	525.9
31	9/13/78	3	15	26.6	33.8	9.3	527.2
31	9/13/78	3	18	21.3	34.8	10.4	528.3
31	9/13/78	3	22	8.0	35.4	10.9	528.8
31	9/13/78	3	27	6.4	35.9	11.4	529.4
31	9/13/78	4	0	1.4	36.7	12.2	530.2
31	9/13/78	4	36	0.4	36.9	12.5	530.4
31	9/13/78	4	40	4.0	37.2	12.8	530.7
31	9/13/78	4	44	4.0	37.5	13.0	531.0
31	9/13/78	4	57	1.2	37.7	13.3	531.2
31	9/13/78	5	2	9.6	38.5	14.1	532.0
31	9/13/78	5	6	27.9	40.4	15.9	533.9
31	9/13/78	5	29	4.2	42.0	17.5	535.5
31	9/13/78	5	50	4.6	43.6	19.1	537.1
31	9/13/78	6	0	6.4	44.7	20.2	538.1
31	9/13/78	6	15	2.1	45.2	20.7	538.7
31	9/13/78	6	40	1.3	45.7	21.3	539.2
31	9/13/78	21	0	0.0	0.0	21.3	539.2
31	9/13/78	21	2	7.9	0.3	21.5	539.5
31	9/13/78	21	7	3.2	0.5	21.8	539.7
31	9/13/78	21	10	5.3	0.8	22.1	540.0
31	9/13/78	21	16	2.6	1.1	22.3	540.3
31	9/13/78	21	19	21.0	2.1	23.4	541.3
31	9/13/78	21	21	23.6	2.9	24.2	542.1
31	9/13/78	21	29	7.9	3.9	25.2	543.1
31	9/13/78	21	53	0.7	4.2	25.5	543.4
31	9/13/78	21	55	31.5	5.3	26.5	544.5
31	9/13/78	21	58	26.3	6.6	27.8	545.8
31	9/13/78	22	2	7.9	7.1	28.4	546.3
31	9/13/78	22	9	6.8	7.9	29.1	547.1
31	9/13/78	22	12	26.3	9.2	30.5	548.4
31	9/13/78	22	16	39.4	11.8	33.1	551.0
31	9/13/78	22	23	6.8	12.6	33.9	551.8
31	9/13/78	22	27	27.6	14.4	35.7	553.7
31	9/13/78	22	32	15.8	15.8	37.0	555.0
31	9/13/78	22	36	3.9	16.0	37.3	555.2
31	9/13/78	22	46	4.7	16.8	38.1	556.0
31	9/13/78	22	54	23.6	20.0	41.2	559.2
31	9/13/78	23	1	9.0	21.0	42.3	560.2
31	9/13/78	23	20	4.1	22.3	43.6	561.5
31	9/13/78	23	52	6.4	25.7	47.0	564.9
31	9/13/78	24	0	7.9	26.8	48.1	566.0
31	9/14/78	0	20	6.3	28.9	2.1	568.1
31	9/14/78	0	30	3.2	29.4	2.6	568.6
31	9/14/78	0	32	7.9	29.7	2.9	568.9
31	9/14/78	0	40	3.9	30.2	3.4	569.4
31	9/14/78	0	42	7.9	30.5	3.7	569.7
31	9/14/78	2	0	0.2	30.7	3.9	569.9
31	9/16/78	20	4	0.0	0.0	0.0	569.9
31	9/16/78	20	6	45.7	1.5	1.5	571.5
31	9/16/78	20	9	5.1	1.8	1.8	571.7
31	9/16/78	20	11	114.3	5.6	5.6	575.5
31	9/16/78	20	12	76.1	6.9	6.9	576.8
31	9/16/78	20	14	61.0	8.9	8.9	578.8
31	9/16/78	20	25	19.4	12.4	12.4	582.4
31	9/16/78	20	32	4.4	13.0	13.0	582.9
31	9/16/78	20	37	48.8	17.0	17.0	587.0
31	9/16/78	20	39	15.2	17.5	17.5	587.5
31	9/16/78	20	48	0.0	17.5	17.5	587.5
31	9/16/78	20	54	5.1	18.0	18.0	588.0
31	9/16/78	21	20	0.6	18.3	18.3	588.2
31	9/17/78	18	45	0.0	0.0	0.0	588.2
31	9/17/78	19	55	1.1	1.3	1.3	589.5
31	9/17/78	20	2	4.5	1.8	1.8	590.0
31	9/17/78	20	10	1.9	2.1	2.1	590.3
31	9/17/78	20	18	3.9	2.6	2.6	590.8
31	9/17/78	20	26	3.9	3.1	3.1	591.3
31	9/17/78	20	48	2.8	4.2	4.2	592.4
31	9/17/78	21	0	6.5	5.5	5.5	593.7
31	9/17/78	21	10	3.1	6.0	6.0	594.2
31	9/17/78	21	20	3.1	6.5	6.5	594.7
31	9/17/78	22	0	1.2	7.3	7.3	595.5
31	9/17/78	22	23	2.0	8.1	8.1	596.3
31	9/17/78	22	40	1.8	8.6	8.6	596.8
31	9/17/78	23	0	0.8	8.8	8.8	597.1
31	9/18/78	0	19	0.4	9.4	0.5	597.6
31	9/18/78	0	26	2.2	9.6	0.8	597.8
31	9/18/78	0	40	3.3	10.4	1.6	598.6
31	9/18/78	1	0	0.8	10.7	1.8	598.9
31	9/18/78	2	25	0.2	10.9	2.1	599.1
31	9/18/78	2	40	2.1	11.4	2.6	599.7
31	9/19/78	19	1	0.0	0.0	0.0	599.7
31	9/19/78	19	7	178.8	17.9	17.9	617.5
31	9/19/78	19	11	19.7	19.2	19.2	618.8
31	9/19/78	20	30	0.0	19.2	19.2	618.8
31	9/19/78	20	34	15.8	20.2	20.2	619.9
31	9/19/78	21	6	0.5	20.5	20.5	620.2
31	9/19/78	21	8	31.5	21.6	21.6	621.2
31	9/19/78	21	10	71.0	23.9	23.9	623.6
31	9/19/78	21	14	23.7	25.5	25.5	625.2
31	9/19/78	21	23	10.5	27.1	27.1	626.7
31	9/19/78	22	0	0.9	27.6	27.6	627.3
31	9/19/78	22	13	0.0	27.6	27.6	627.3
31	9/19/78	22	17	11.8	28.4	28.4	628.0
31	9/19/78	23	33	0.4	28.9	28.9	628.6
31	9/19/78	23	35	7.9	29.2	29.2	628.8

TABLE B1-13. CONTINUED

GAGE	DATE	HOUR	MIN	PRECIP INTENSITY MM/HR	ACCUMULATED STORM MM	PRECIPITATION DAY MM	PRECIPITATION YEAR MM
31	9/19/78	23	52	0.0	29.2	29.2	628.8
31	9/19/78	24	0	3.9	29.7	29.7	629.4
31	9/20/78	0	5	12.6	30.8	1.1	630.4
31	9/20/78	0	30	0.6	31.0	1.3	630.7
31	9/20/78	0	44	5.6	32.3	2.6	632.0
31	9/20/78	0	47	10.5	32.9	3.2	632.5
31	9/20/78	1	1	3.4	33.7	3.9	633.3
31	9/20/78	1	10	1.8	33.9	4.2	633.6
31	9/20/78	1	20	7.9	35.2	5.5	634.9
31	9/20/78	1	32	5.3	36.3	6.6	635.9
31	9/20/78	1	43	1.4	36.5	6.8	636.2
31	9/20/78	5	20	0.1	36.8	7.1	636.5
31	9/20/78	5	29	1.8	37.1	7.4	636.7
31	9/20/78	5	36	4.5	37.6	7.9	637.2
31	9/20/78	5	45	5.3	38.4	8.7	638.0
31	9/20/78	5	48	5.3	38.6	8.9	638.3
31	9/20/78	5	57	5.3	39.4	9.7	639.1
31	9/20/78	6	5	11.8	41.0	11.3	640.7
31	9/20/78	6	27	1.4	41.5	11.8	641.2
31	9/20/78	6	47	3.9	42.9	13.1	642.5
31	9/20/78	7	22	3.6	45.0	15.2	644.6
31	9/20/78	8	21	0.5	45.5	15.8	645.1
31	9/20/78	8	34	1.2	45.7	16.0	645.4
31	9/20/78	8	42	7.9	46.8	17.1	646.4
31	9/20/78	8	53	7.2	48.1	18.4	647.8
31	9/20/78	9	8	3.2	48.9	19.2	648.5
31	9/20/78	9	11	5.3	49.2	19.5	648.8
31	9/20/78	9	16	3.2	49.4	19.7	649.1
31	9/20/78	9	18	47.3	51.0	21.3	650.7
31	9/20/78	9	22	11.8	51.8	22.1	651.4
31	9/20/78	9	35	1.2	52.1	22.3	651.7
31	9/20/78	9	38	21.0	53.1	23.4	652.8
31	9/20/78	9	43	6.3	53.6	23.9	653.3
31	9/20/78	9	45	31.5	54.7	25.0	654.3
31	9/20/78	9	51	13.1	56.0	26.3	655.6
31	9/20/78	9	58	13.5	57.6	27.9	657.2
31	9/20/78	10	14	2.0	58.1	28.4	657.7
31	9/20/78	12	40	0.1	58.4	28.7	658.0
31	9/20/78	13	0	1.6	58.9	29.2	658.5
31	9/20/78	14	50	0.1	59.2	29.4	658.8
31	9/20/78	14	59	3.5	59.7	30.0	659.3
31	9/20/78	16	0	0.3	59.9	30.2	659.6
31	9/29/78			NO DATA	0.0	0.0	659.6
31	9/29/78			NO DATA	2.5	2.5	662.1
31	10/ 2/78	11	30	0.0	0.0	0.0	662.1
31	10/ 2/78	11	36	25.4	2.5	2.5	664.7
31	10/ 2/78	11	38	53.3	4.3	4.3	666.4
31	10/ 2/78	11	41	15.2	5.1	5.1	667.2
31	10/ 2/78	11	49	1.9	5.3	5.3	667.5
31	10/ 2/78	11	59	6.1	6.3	6.3	668.5
31	10/ 2/78	12	3	11.4	7.1	7.1	669.2
31	10/ 2/78	12	42	0.8	7.6	7.6	669.7
31	10/ 2/78	12	45	5.1	7.9	7.9	670.0
31	10/ 2/78	12	58	1.2	8.1	8.1	670.3
31	10/ 2/78	13	5	6.5	8.9	8.9	671.0
31	10/ 2/78	13	24	1.6	9.4	9.4	671.5
31	10/ 2/78	13	45	3.6	10.7	10.7	672.8
31	10/ 2/78	14	0	1.0	10.9	10.9	673.0
31	10/ 2/78	14	5	3.0	11.2	11.2	673.3
31	10/ 2/78	14	24	2.4	11.9	11.9	674.1
31	10/ 2/78	14	36	2.5	12.4	12.4	674.6
31	10/ 2/78	14	46	4.6	13.2	13.2	675.3
31	10/ 2/78	15	6	2.3	14.0	14.0	676.1
31	10/ 3/78			NO DATA	0.0	0.0	676.1
31	10/ 3/78			NO DATA	0.8	0.8	676.9
31	10/ 9/78	10	35	0.0	0.0	0.0	676.9
31	10/ 9/78	10	38	16.4	0.8	0.8	677.7
31	10/ 9/78	10	42	20.5	2.2	2.2	679.0
31	10/ 9/78	10	45	16.4	3.0	3.0	679.9
31	10/ 9/78	10	52	11.7	4.4	4.4	681.2
31	10/ 9/78	10	55	5.5	4.7	4.7	681.5
31	10/ 9/78	11	0	3.3	4.9	4.9	681.8
31	10/ 9/78	11	10	1.6	5.2	5.2	682.1
31	10/ 9/78	11	24	2.3	5.8	5.8	682.6
31	10/ 9/78	15	10	0.0	5.8	5.8	682.6
31	10/ 9/78	15	20	4.9	6.6	6.6	683.4
31	10/ 9/78	15	28	2.1	6.8	6.8	683.7
31	10/ 9/78	16	40	0.2	7.1	7.1	684.0
31	10/ 9/78	16	55	2.2	7.7	7.7	684.5
31	10/ 9/78	17	0	6.6	8.2	8.2	685.1
31	10/ 9/78	17	3	32.9	9.9	9.9	686.7
31	10/ 9/78	17	30	1.8	10.7	10.7	687.5
31	10/ 9/78	18	0	0.5	11.0	11.0	687.8
31	10/ 9/78	18	10	1.6	11.2	11.2	688.1
31	10/ 9/78	18	35	0.7	11.5	11.5	688.4
31	10/ 9/78	18	40	3.3	11.8	11.8	688.6
31	10/ 9/78	19	15	0.5	12.1	12.1	688.9
31	10/ 9/78	19	20	6.6	12.6	12.6	689.5
31	10/ 9/78	20	0	0.4	12.9	12.9	689.7
31	10/ 9/78	20	30	2.2	14.0	14.0	690.8
31	10/22/78			NO DATA	0.0	0.0	690.8
31	10/22/78			NO DATA	3.8	3.8	694.6
31	11/ 5/78			NO DATA	0.0	0.0	694.6
31	11/ 5/78			NO DATA	1.8	1.8	696.4
31	11/11/78	13	40	0.0	0.0	0.0	696.4
31	11/11/78	13	55	1.0	0.3	0.3	696.7
31	11/11/78	14	30	0.4	0.5	0.5	696.9

TABLE B1-13. CONCLUDED

GAGE	DATE	HOUR	MIN	PRECIP INTENSITY MM/HR	ACCUMULATED STORM MM	PRECIPITATION DAY MM	PRECIPITATION YEAR MM
31	11/11/78	23	54	0.0	0.8	0.8	697.2
31	11/11/78	24	0	5.1	1.3	1.3	697.7
31	11/12/78	1	0	0.3	1.5	0.3	698.0
31	11/12/78	2	50	0.1	1.8	0.5	698.2
31	11/12/78	2	56	2.6	2.1	0.8	698.5
31	11/12/78	3	25	4.3	4.1	2.8	700.5
31	11/12/78	3	35	1.5	4.4	3.1	700.8
31	11/12/78	4	5	2.1	5.4	4.1	701.8
31	11/12/78	4	46	0.8	5.9	4.6	702.3
31	11/12/78	5	8	1.4	6.4	5.1	702.8
31	11/12/78	5	20	1.3	6.7	5.4	703.1
31	11/12/78	5	41	0.7	6.9	5.7	703.3
31	11/12/78	5	45	3.9	7.2	5.9	703.6
31	11/12/78	6	4	0.8	7.5	6.2	703.9
31	11/12/78	6	14	4.6	8.2	6.9	704.6
31	11/12/78	6	30	1.9	8.7	7.5	705.1
31	11/12/78	7	0	1.0	9.3	8.0	705.7
31	11/12/78	7	10	3.1	9.8	8.5	706.2
31	11/12/78	7	45	0.0	9.8	8.5	706.2
31	11/12/78	7	53	13.5	11.6	10.3	708.0
31	11/12/78	7	56	30.8	13.1	11.8	709.5
31	11/12/78	8	2	15.4	14.7	13.4	711.1
31	11/12/78	8	7	6.2	15.2	13.9	711.6
31	11/12/78	8	12	6.2	15.7	14.4	712.1
31	11/12/78	8	17	15.4	17.0	15.7	713.4
31	11/12/78	8	35	1.7	17.5	16.2	713.9
31	11/12/78	8	52	4.5	18.8	17.5	715.2
31	11/12/78	9	0	1.9	19.0	17.7	715.4
31	11/12/78	9	20	3.1	20.0	18.8	716.5
31	11/12/78	9	30	1.5	20.3	19.0	716.7
31	11/12/78	10	48	0.4	20.8	19.5	717.2
31	11/12/78	10	49	61.7	21.8	20.6	718.3
31	11/12/78	10	54	9.3	22.6	21.3	719.0
31	11/12/78	11	4	3.1	23.1	21.8	719.5
31	11/12/78	11	10	10.3	24.2	22.9	720.6
31	11/12/78	11	15	6.2	24.7	23.4	721.1
31	11/12/78	11	32	2.7	25.4	24.2	721.9
31	11/12/78	11	36	15.4	26.5	25.2	722.9
31	11/12/78	11	48	7.7	28.0	26.7	724.4
31	11/12/78	11	51	20.6	29.0	27.8	725.4
31	11/12/78	12	10	2.4	29.8	28.5	726.2
31	11/12/78	12	28	1.7	30.3	29.0	726.7
31	11/12/78	12	31	5.1	30.6	29.3	727.0
31	11/12/78	12	49	0.9	30.8	29.6	727.2
31	11/12/78	12	52	10.3	31.4	30.1	727.8
31	11/12/78	13	1	1.7	31.6	30.3	728.0
31	11/12/78	13	3	15.4	32.1	30.8	728.5
31	11/12/78	13	10	2.2	32.4	31.1	728.8
31	11/12/78	13	15	15.4	33.7	32.4	730.1
31	11/12/78	13	17	15.4	34.2	32.9	730.6
31	11/12/78	13	30	1.2	34.4	33.2	730.8
31	11/12/78	13	45	2.1	35.0	33.7	731.4
31	11/12/78	13	48	5.1	35.2	33.9	731.6
31	11/12/78	14	5	3.6	36.2	35.0	732.6
31	11/12/78	14	12	4.4	36.8	35.5	733.2
31	11/12/78	14	48	6.9	40.9	39.6	737.3
31	11/12/78	16	10	0.8	41.9	40.6	738.3
31	11/12/78	16	30	0.6	43.2	41.9	739.6

TABLE B1-14. FOUR MILE CREEK WATERSHED PRECIPITATION DATA FOR 1978 GAGE 32

GAGE	DATE	HOUR	MIN	PRECIP INTENSITY MM/HR	ACCUMULATED STORM MM	PRECIPITATION DAY MM	YEAR MM
32	4/ 3/78			NO DATA	0.0	0.0	0.0
32	4/ 3/78			NO DATA	0.8	0.8	0.8
32	4/ 5/78			NO DATA	0.0	0.0	0.8
32	4/ 5/78			NO DATA	21.6	21.6	22.4
32	4/ 6/78			NO DATA	0.0	0.0	22.4
32	4/ 6/78			NO DATA	3.8	3.8	26.2
32	4/ 8/78			NO DATA	0.0	0.0	26.2
32	4/ 8/78			NO DATA	2.5	2.5	28.7
32	4/ 9/78			NO DATA	0.0	0.0	28.7
32	4/ 9/78			NO DATA	19.6	19.6	48.3
32	4/17/78			NO DATA	0.0	0.0	48.3
32	4/17/78			NO DATA	53.8	53.8	102.1
32	4/18/78			NO DATA	0.0	0.0	102.1
32	4/18/78			NO DATA	10.2	10.2	112.3
32	4/18/78			NO DATA	0.0	10.2	112.3
32	4/18/78			NO DATA	5.1	15.2	117.3
32	4/19/78			NO DATA	0.0	0.0	117.3
32	4/19/78			NO DATA	0.8	0.8	118.1
32	4/20/78			NO DATA	0.0	0.0	118.1
32	4/20/78			NO DATA	0.5	0.5	118.6
32	4/22/78			NO DATA	0.0	0.0	118.6
32	4/22/78			NO DATA	3.8	3.8	122.4
32	5/ 7/78			NO DATA	0.0	0.0	122.4
32	5/ 7/78			NO DATA	16.3	16.3	138.7
32	5/ 8/78			NO DATA	0.0	0.0	138.7
32	5/ 8/78			NO DATA	2.5	2.5	141.2
32	5/12/78	19	55	0.0	0.0	0.0	141.2
32	5/12/78	20	10	2.1	0.5	0.5	141.7
32	5/12/78	20	30	3.9	1.8	1.8	143.1
32	5/12/78	20	40	4.7	2.6	2.6	143.8
32	5/12/78	20	50	4.7	3.4	3.4	144.6
32	5/12/78	21	4	3.4	4.2	4.2	145.4
32	5/12/78	21	6	7.8	4.4	4.4	145.7
32	5/12/78	21	18	2.6	5.0	5.0	146.2
32	5/12/78	21	36	4.4	6.3	6.3	147.5
32	5/12/78	21	55	6.6	8.4	8.4	149.6
32	5/12/78	22	10	3.1	9.1	9.1	150.4
32	5/12/78	22	35	3.1	10.5	10.5	151.7
32	5/12/78	22	53	1.7	11.0	11.0	152.2
32	5/12/78	23	13	3.1	12.0	12.0	153.2
32	5/12/78	23	38	1.9	12.8	12.8	154.0
32	5/12/78	23	50	2.6	13.3	13.3	154.6
32	5/13/78	0	10	3.9	14.6	1.3	155.9
32	5/13/78	0	13	10.5	15.2	1.8	156.4
32	5/13/78	0	24	5.7	16.2	2.9	157.4
32	5/13/78	0	31	2.2	16.5	3.1	157.7
32	5/13/78	1	10	4.8	19.6	6.3	160.8
32	5/13/78	1	24	3.4	20.4	7.1	161.6
32	5/13/78	1	42	6.1	22.2	8.9	163.4
32	5/13/78	1	55	4.8	23.3	9.9	164.5
32	5/13/78	2	1	5.2	23.8	10.5	165.0
32	5/13/78	2	12	2.9	24.3	11.0	165.5
32	5/13/78	2	30	3.5	25.4	12.0	166.6
32	5/13/78	3	20	3.1	28.0	14.6	169.2
32	5/13/78	3	34	3.4	28.8	15.4	170.0
32	5/13/78	3	45	7.1	30.1	16.7	171.3
32	5/13/78	4	9	3.3	31.4	18.0	172.6
32	5/13/78	4	49	2.0	32.7	19.3	173.9
32	5/13/78	5	10	1.5	33.2	19.9	174.4
32	5/13/78	5	32	1.4	33.7	20.4	174.9
32	5/13/78	6	13	1.9	35.0	21.7	176.3
32	5/13/78	6	27	2.2	35.6	22.2	176.8
32	5/13/78	6	58	0.5	35.8	22.5	177.0
32	5/22/78			NO DATA	0.0	0.0	177.0
32	5/22/78			NO DATA	1.3	1.3	178.3
32	5/27/78	16	5	0.0	0.0	0.0	178.3
32	5/27/78	16	7	15.5	0.5	0.5	178.8
32	5/27/78	16	10	31.1	2.1	2.1	180.4
32	5/27/78	16	11	77.7	3.4	3.4	181.7
32	5/27/78	16	13	54.4	5.2	5.2	183.5
32	5/27/78	16	15	23.3	6.0	6.0	184.3
32	5/27/78	16	19	3.9	6.2	6.2	184.5
32	5/27/78	16	21	31.1	7.3	7.3	185.6
32	5/27/78	16	24	46.6	9.6	9.6	187.9
32	5/27/78	16	25	15.5	9.8	9.8	188.1
32	5/27/78	16	27	132.0	14.2	14.2	192.5
32	5/27/78	16	30	82.9	18.4	18.4	196.7
32	5/27/78	16	32	54.4	20.2	20.2	198.5
32	5/27/78	16	34	62.1	22.3	22.3	200.6
32	5/27/78	16	37	5.2	22.5	22.5	200.8
32	5/27/78	16	40	31.1	24.1	24.1	202.4
32	5/27/78	16	48	15.5	26.2	26.2	204.5
32	5/27/78	17	0	2.6	26.7	26.7	205.0
32	5/31/78	21	50	0.0	0.0	0.0	205.0
32	5/31/78	21	53	26.3	1.3	1.3	206.3
32	5/31/78	22	5	18.4	5.0	5.0	210.0
32	5/31/78	22	8	10.5	5.5	5.5	210.5
32	5/31/78	22	10	31.6	6.6	6.6	211.6

TABLE B1-14. CONTINUED

GAGE	DATE	HOUR	MIN	PRECIP INTENSITY MM/HR	ACCUMULATED STORM MM	PRECIPITATION DAY MM	PRECIPITATION YEAR MM
32	5/31/78	22	13	15.8	7.4	7.4	212.3
32	5/31/78	22	20	4.5	7.9	7.9	212.9
32	5/31/78	22	22	7.9	8.2	8.2	213.1
32	5/31/78	22	27	3.2	8.4	8.4	213.4
32	5/31/78	22	28	31.6	9.0	9.0	213.9
32	5/31/78	22	40	1.3	9.2	9.2	214.2
32	5/31/78	22	54	1.1	9.5	9.5	214.5
32	6/ 1/78	5	33	0.0	9.7	0.3	214.7
32	6/ 1/78	5	37	11.8	10.5	1.1	215.5
32	6/ 1/78	5	45	2.0	10.8	1.3	215.8
32	6/ 1/78	5	47	7.9	11.1	1.6	216.0
32	6/ 1/78	5	49	31.6	12.1	2.6	217.1
32	6/ 1/78	6	16	2.3	13.2	3.7	218.1
32	6/ 1/78	7	5	0.3	13.4	3.9	218.4
32	6/ 1/78	7	16	4.3	14.2	4.7	219.2
32	6/ 1/78	8	13	0.3	14.5	5.0	219.5
32	6/ 6/78			NO DATA	0.0	0.0	219.5
32	6/ 6/78			NO DATA	0.5	0.5	220.0
32	6/ 7/78			NO DATA	0.0	0.0	220.0
32	6/ 7/78			NO DATA	3.0	3.0	223.0
32	6/14/78	12	34	0.0	0.0	0.0	223.0
32	6/14/78	12	50	3.8	1.0	1.0	224.0
32	6/14/78	13	23	5.1	3.8	3.8	226.8
32	6/14/78	13	57	4.9	6.6	6.6	229.6
32	6/14/78	14	10	2.3	7.1	7.1	230.1
32	6/15/78	1	7	0.0	0.0	0.0	230.1
32	6/15/78	1	12	48.3	4.0	4.0	234.1
32	6/15/78	1	14	40.2	5.4	5.4	235.5
32	6/15/78	1	25	2.9	5.9	5.9	236.0
32	6/15/78	1	33	16.1	8.0	8.0	238.2
32	6/15/78	1	36	5.4	8.3	8.3	238.4
32	6/15/78	1	41	16.1	9.7	9.7	239.8
32	6/15/78	1	42	80.4	11.0	11.0	241.1
32	6/15/78	1	44	32.2	12.1	12.1	242.2
32	6/15/78	1	46	32.2	13.1	13.1	243.3
32	6/15/78	1	49	5.4	13.4	13.4	243.5
32	6/15/78	1	52	26.8	14.7	14.7	244.9
32	6/15/78	1	56	4.0	15.0	15.0	245.1
32	6/15/78	2	2	13.4	16.4	16.4	246.5
32	6/15/78	2	4	8.0	16.6	16.6	246.7
32	6/15/78	2	10	10.7	17.7	17.7	247.8
32	6/15/78	2	26	1.0	18.0	18.0	248.1
32	6/15/78	2	35	8.9	19.3	19.3	249.4
32	6/15/78	2	40	6.4	19.8	19.8	250.0
32	6/15/78	2	50	3.2	20.4	20.4	250.5
32	6/15/78	3	0	3.2	20.9	20.9	251.0
32	6/15/78	3	27	1.8	21.7	21.7	251.8
32	6/15/78	3	46	3.4	22.8	22.8	252.9
32	6/15/78	4	0	1.1	23.1	23.1	253.2
32	6/15/78	4	7	2.3	23.3	23.3	253.4
32	6/15/78	4	20	1.2	23.6	23.6	253.7
32	6/15/78	4	40	1.6	24.1	24.1	254.2
32	6/17/78			NO DATA	0.0	0.0	254.2
32	6/17/78			NO DATA	3.0	3.0	257.3
32	6/20/78	0	18	0.0	0.0	0.0	257.3
32	6/20/78	0	20	7.6	0.3	0.3	257.6
32	6/20/78	0	34	1.1	0.5	0.5	257.8
32	6/20/78	0	44	1.5	0.8	0.8	258.1
32	6/20/78	0	48	106.7	7.9	7.9	265.2
32	6/20/78	0	53	39.6	11.2	11.2	268.5
32	6/20/78	0	56	55.9	14.0	14.0	271.3
32	6/20/78	0	59	25.4	15.2	15.2	272.5
32	6/20/78	1	0	15.2	15.5	15.5	272.8
32	6/20/78	1	4	45.7	18.5	18.5	275.8
32	6/20/78	1	6	15.2	19.0	19.0	276.3
32	6/20/78	1	9	5.1	19.3	19.3	276.6
32	6/20/78	1	18	15.2	21.6	21.6	278.9
32	6/20/78	1	24	22.9	23.9	23.9	281.2
32	6/20/78	1	27	5.1	24.1	24.1	281.4
32	6/20/78	1	31	19.0	25.4	25.4	282.7
32	6/20/78	1	59	5.4	27.9	27.9	285.2
32	6/20/78	2	4	15.2	29.2	29.2	286.5
32	6/20/78	2	13	5.1	30.0	30.0	287.3
32	6/20/78	2	25	8.9	31.7	31.7	289.0
32	6/20/78	2	40	7.1	33.5	33.5	290.8
32	6/20/78	2	46	7.6	34.3	34.3	291.6
32	6/20/78	3	17	2.0	35.3	35.3	292.6
32	6/20/78	3	30	1.2	35.6	35.6	292.9
32	6/20/78	4	15	0.7	36.1	36.1	293.4
32	6/20/78	4	24	5.1	36.8	36.8	294.1
32	6/20/78	4	34	3.0	37.3	37.3	294.6
32	6/20/78	5	29	0.3	37.6	37.6	294.9
32	6/20/78	5	34	3.0	37.8	37.8	295.1
32	6/20/78	5	50	1.0	38.1	38.1	295.4
32	6/23/78			NO DATA	0.0	0.0	295.4
32	6/23/78			NO DATA	0.8	0.8	296.2
32	6/26/78			NO DATA	0.0	0.0	296.2
32	6/26/78			NO DATA	0.8	0.8	296.9
32	6/28/78	16	18	0.0	0.0	0.0	296.9
32	6/28/78	16	23	9.3	0.8	0.8	297.7
32	6/28/78	16	25	23.1	1.5	1.5	298.5
32	6/28/78	16	27	38.6	2.8	2.8	299.7
32	6/28/78	16	30	77.1	6.7	6.7	303.6
32	6/28/78	16	32	123.5	10.8	10.8	307.7
32	6/28/78	16	39	74.9	19.5	19.5	316.5

TABLE B1-14. CONTINUED

GAGE	DATE	HOUR	MIN	PRECIP INTENSITY MM/HR	ACCUMULATED PRECIPITATION STORM MM	DAY MM	YEAR MM
32	6/28/78	16	41	30.9	20.6	20.6	317.5
32	6/28/78	16	43	7.7	20.8	20.8	317.7
32	7/ 2/78			NO DATA	0.0	0.0	317.7
32	7/ 2/78			NO DATA	4.6	4.6	322.3
32	7/ 6/78	1	28	0.0	0.0	0.0	322.3
32	7/ 6/78	1	34	23.5	2.3	2.3	324.7
32	7/ 6/78	1	40	2.6	2.6	2.6	324.9
32	7/ 6/78	1	43	15.7	3.4	3.4	325.7
32	7/ 6/78	1	46	41.7	5.5	5.5	327.8
32	7/ 6/78	1	51	21.9	7.3	7.3	329.6
32	7/ 6/78	2	0	1.7	7.6	7.6	329.9
32	7/ 6/78	2	5	3.1	7.8	7.8	330.1
32	7/ 6/78	2	40	0.4	8.1	8.1	330.4
32	7/ 6/78	2	55	1.0	8.3	8.3	330.7
32	7/ 6/78	3	26	1.5	9.1	9.1	331.4
32	7/ 6/78	3	50	1.3	9.7	9.7	332.0
32	7/ 6/78	22	32	0.0	0.0	9.7	332.0
32	7/ 6/78	22	39	4.1	0.5	10.1	332.4
32	7/ 6/78	22	48	1.6	0.7	10.4	332.7
32	7/ 6/78	23	13	0.6	1.0	10.6	332.9
32	7/ 6/78	23	28	1.9	1.4	11.1	333.4
32	7/ 6/78	23	45	1.7	1.9	11.6	333.9
32	7/ 7/78	1	57	0.1	2.2	0.2	334.1
32	7/ 7/78	2	18	2.8	3.1	1.2	335.1
32	7/ 7/78	2	40	4.6	4.8	2.9	336.8
32	7/ 8/78	23	32	0.0	0.0	0.0	336.8
32	7/ 8/78	23	36	17.6	1.2	1.2	338.0
32	7/ 8/78	23	40	7.1	1.6	1.6	338.4
32	7/ 8/78	23	46	2.4	1.9	1.9	338.7
32	7/ 8/78	23	53	4.0	2.4	2.4	339.1
32	7/ 8/78	23	55	28.2	3.3	3.3	340.1
32	7/ 8/78	24	0	2.6	3.5	3.5	340.3
32	7/ 9/78	0	58	0.7	4.2	0.7	341.0
32	7/ 9/78	1	12	4.0	5.2	1.6	342.0
32	7/ 9/78	1	40	0.5	5.4	1.9	342.2
32	7/ 9/78	1	58	3.1	6.3	2.8	343.1
32	7/12/78			NO DATA	0.0	0.0	343.1
32	7/12/78			NO DATA	3.6	3.6	346.7
32	7/17/78	4	10	0.0	0.0	0.0	346.7
32	7/17/78	5	30	0.2	0.3	0.3	347.0
32	7/17/78	5	45	1.1	0.5	0.5	347.2
32	7/17/78	5	56	2.9	1.1	1.1	347.8
32	7/17/78	6	0	7.9	1.6	1.6	348.3
32	7/17/78	6	6	2.6	1.9	1.9	348.5
32	7/17/78	6	34	1.1	2.4	2.4	349.1
32	7/17/78	6	36	15.9	2.9	2.9	349.6
32	7/17/78	8	10	0.3	3.4	3.4	350.1
32	7/17/78	10	36	0.1	3.7	3.7	350.4
32	7/17/78	11	2	1.8	4.5	4.5	351.2
32	7/17/78	11	23	0.8	4.8	4.8	351.5
32	7/17/78	11	30	6.8	5.6	5.6	352.3
32	7/17/78	11	50	1.6	6.1	6.1	352.8
32	7/17/78	12	20	0.5	6.3	6.3	353.0
32	7/18/78	4	50	0.0	0.0	0.0	353.0
32	7/18/78	5	0	3.0	0.5	0.5	353.6
32	7/18/78	5	10	1.5	0.8	0.8	353.8
32	7/18/78	5	20	3.0	1.3	1.3	354.3
32	7/18/78	5	30	6.1	2.3	2.3	355.3
32	7/18/78	5	52	2.1	3.0	3.0	356.1
32	7/18/78	6	0	1.9	3.3	3.3	356.3
32	7/18/78	6	18	4.2	4.6	4.6	357.6
32	7/18/78	6	25	26.1	7.6	7.6	360.7
32	7/18/78	7	10	1.7	8.9	8.9	361.9
32	7/18/78	20	34	0.0	0.0	8.9	361.9
32	7/18/78	20	39	46.7	3.9	12.8	365.8
32	7/18/78	20	42	36.3	5.7	14.6	367.6
32	7/18/78	20	45	41.5	7.8	16.7	369.7
32	7/18/78	20	50	31.1	10.4	19.3	372.3
32	7/18/78	20	59	8.6	11.7	20.6	373.6
32	7/18/78	21	7	1.9	11.9	20.8	373.9
32	7/18/78	21	11	15.6	13.0	21.9	374.9
32	7/18/78	21	20	1.7	13.2	22.1	375.2
32	7/18/78	21	30	3.1	13.7	22.6	375.7
32	7/18/78	21	40	6.2	14.8	23.7	376.7
32	7/18/78	22	0	3.1	15.8	24.7	377.7
32	7/18/78	22	18	5.2	17.4	26.3	379.3
32	7/18/78	22	32	2.2	17.9	26.8	379.8
32	7/18/78	22	50	0.9	18.2	27.0	380.1
32	7/19/78	1	48	0.0	18.2	0.0	380.1
32	7/19/78	1	50	38.9	19.4	1.3	381.4
32	7/19/78	1	54	46.7	22.6	4.4	384.5
32	7/19/78	1	56	31.1	23.6	5.4	385.5
32	7/19/78	3	22	0.2	23.9	5.7	385.8
32	7/19/78	3	24	23.3	24.6	6.5	386.6
32	7/19/78	3	30	2.6	24.9	6.7	386.8
32	7/20/78			NO DATA	0.0	0.0	386.8
32	7/20/78			NO DATA	2.5	2.5	389.4
32	7/21/78			NO DATA	0.0	0.0	389.4
32	7/21/78			NO DATA	3.0	3.0	392.4
32	7/22/78			NO DATA	0.0	0.0	392.4
32	7/22/78			NO DATA	1.8	1.8	394.2
32	7/26/78			NO DATA	0.0	0.0	394.2

TABLE B1-14. CONTINUED

GAGE	DATE	HOUR	MIN	PRECIP INTENSITY MM/HR	ACCUMULATED PRECIPITATION STORM MM	DAY MM	YEAR MM
32	7/26/78			NO DATA	5.8	5.8	400.0
32	8/17/78			NO DATA	0.0	0.0	400.0
32	8/17/78			NO DATA	2.5	2.5	402.6
32	8/21/78	12	7	0.0	0.0	0.0	402.6
32	8/21/78	12	57	3.7	3.0	3.0	405.6
32	8/21/78	13	22	1.8	3.8	3.8	406.4
32	8/21/78	13	37	3.0	4.6	4.6	407.1
32	8/21/78	13	50	2.3	5.1	5.1	407.7
32	8/21/78	14	10	0.8	5.3	5.3	407.9
32	8/21/78	14	26	1.0	5.6	5.6	408.2
32	8/21/78	14	31	6.1	6.1	6.1	408.7
32	8/21/78	14	38	2.2	6.3	6.3	408.9
32	8/21/78	14	47	15.2	8.6	8.6	411.2
32	8/21/78	14	50	30.5	10.2	10.2	412.7
32	8/21/78	15	2	6.4	11.4	11.4	414.0
32	8/21/78	15	11	8.5	12.7	12.7	415.3
32	8/21/78	15	14	20.3	13.7	13.7	416.3
32	8/21/78	15	20	2.5	14.0	14.0	416.5
32	8/21/78	15	24	30.5	16.0	16.0	418.6
32	8/21/78	15	34	3.0	16.5	16.5	419.1
32	8/21/78	15	37	25.4	17.8	17.8	420.3
32	8/21/78	15	41	34.3	20.1	20.1	422.6
32	8/21/78	15	47	2.5	20.3	20.3	422.9
32	8/26/78	5	48	0.0	0.0	0.0	422.9
32	8/26/78	5	50	46.9	1.6	1.6	424.5
32	8/26/78	5	53	5.2	1.8	1.8	424.7
32	8/26/78	5	54	78.2	3.1	3.1	426.0
32	8/26/78	5	55	125.2	5.2	5.2	428.1
32	8/26/78	5	56	31.3	5.7	5.7	428.6
32	8/26/78	5	59	62.6	8.9	8.9	431.8
32	8/26/78	6	4	12.5	9.9	9.9	432.8
32	8/26/78	6	23	1.6	10.4	10.4	433.3
32	8/26/78	6	27	7.8	11.0	11.0	433.8
32	8/26/78	14	12	0.0	11.0	11.0	433.8
32	8/26/78	14	17	9.4	11.7	11.7	434.6
32	8/26/78	14	32	1.0	12.0	12.0	434.9
32	8/26/78	14	36	11.7	12.8	12.8	435.7
32	8/26/78	14	57	0.0	12.8	12.8	435.7
32	8/26/78	15	5	11.7	14.3	14.3	437.2
32	8/26/78	15	7	15.6	14.9	14.9	437.7
32	8/26/78	20	11	0.0	14.9	14.9	437.7
32	8/26/78	20	20	3.5	15.4	15.4	438.3
32	8/26/78	20	28	11.7	16.9	16.9	439.8
32	8/26/78	20	39	81.1	31.8	31.8	454.7
32	8/26/78	20	46	67.0	39.6	39.6	462.5
32	8/26/78	20	47	125.2	41.7	41.7	464.6
32	8/26/78	20	51	35.2	44.1	44.1	466.9
32	8/26/78	21	2	28.4	49.3	49.3	472.2
32	8/26/78	21	9	46.9	54.8	54.8	477.6
32	8/26/78	21	14	21.9	56.6	56.6	479.5
32	8/26/78	21	21	13.4	58.1	58.1	481.0
32	8/26/78	21	24	26.1	59.4	59.4	482.3
32	8/26/78	21	30	10.4	60.5	60.5	483.4
32	8/26/78	21	50	3.9	61.8	61.8	484.7
32	8/26/78	21	56	2.6	62.1	62.1	484.9
32	8/26/78	22	4	7.8	63.1	63.1	486.0
32	8/26/78	22	21	1.8	63.6	63.6	486.5
32	8/26/78	22	30	13.9	65.7	65.7	488.6
32	8/26/78	22	44	2.2	66.2	66.2	489.1
32	8/26/78	23	2	6.1	68.1	68.1	490.9
32	8/26/78	23	35	6.6	71.7	71.7	494.6
32	8/26/78	23	58	3.4	73.0	73.0	495.9
32	8/27/78	0	20	2.8	74.0	1.0	496.9
32	8/27/78	0	40	2.3	74.8	1.8	497.7
32	8/27/78	11	10	0.1	76.4	3.4	499.3
32	8/27/78	11	24	10.1	78.7	5.7	501.6
32	8/27/78			NO DATA	0.0	5.7	501.6
32	8/27/78			NO DATA	1.5	7.3	503.1
32	9/12/78	20	50	0.0	0.0	0.0	503.1
32	9/12/78	22	30	0.3	0.5	0.5	503.7
32	9/12/78	22	31	91.5	2.0	2.0	505.2
32	9/12/78	22	37	7.6	2.8	2.8	505.9
32	9/12/78	22	50	1.2	3.0	3.0	506.2
32	9/12/78	22	59	6.8	4.1	4.1	507.2
32	9/12/78	23	4	12.2	5.1	5.1	508.2
32	9/12/78	23	7	30.5	6.6	6.6	509.7
32	9/12/78	23	9	30.5	7.6	7.6	510.8
32	9/12/78	23	14	57.9	12.4	12.4	515.6
32	9/12/78	23	20	25.4	15.0	15.0	518.1
32	9/12/78	23	29	11.9	16.8	16.8	519.9
32	9/12/78	23	40	2.8	17.3	17.3	520.4
32	9/12/78	23	45	9.1	18.0	18.0	521.2
32	9/13/78	0	13	0.9	18.5	0.5	521.7
32	9/13/78	0	23	24.4	20.6	2.5	523.7
32	9/13/78	0	27	19.1	21.8	3.8	525.0
32	9/13/78	0	39	7.6	23.4	5.3	526.5
32	9/13/78	0	42	10.2	23.9	5.8	527.0
32	9/13/78	0	47	6.1	24.4	6.3	527.5
32	9/13/78	1	58	0.2	24.6	6.6	527.8
32	9/13/78	2	1	20.3	25.7	7.6	528.8
32	9/13/78	2	8	2.2	25.9	7.9	529.1
32	9/13/78	2	12	3.8	26.2	8.1	529.3
32	9/13/78	2	24	0.0	26.2	8.1	529.3
32	9/13/78	2	30	5.1	26.7	8.6	529.8
32	9/13/78	2	44	1.1	26.9	8.9	530.1
32	9/13/78	2	50	2.5	27.2	9.1	530.3
32	9/13/78	3	0	1.5	27.4	9.4	530.6
32	9/13/78	3	15	3.0	28.2	10.2	531.3
32	9/13/78	3	23	7.6	29.2	11.2	532.4

TABLE B1-14. CONTINUED

GAGE	DATE	HOUR	MIN	PRECIP INTENSITY MM/HR	ACCUMULATED STORM MM	PRECIPITATION DAY MM	PRECIPITATION YEAR MM
32	9/13/78	3	27	19.1	30.5	12.4	533.6
32	9/13/78	3	45	2.5	31.2	13.2	534.4
32	9/13/78	3	55	1.5	31.5	13.5	534.6
32	9/13/78	4	8	1.2	31.7	13.7	534.9
32	9/13/78	4	40	1.0	32.3	14.2	535.4
32	9/13/78	4	45	9.1	33.0	15.0	536.2
32	9/13/78	5	2	1.8	33.5	15.5	536.7
32	9/13/78	5	8	2.5	33.8	15.7	536.9
32	9/13/78	5	16	17.1	36.1	18.0	539.2
32	9/13/78	5	18	30.5	37.1	19.0	540.2
32	9/13/78	5	40	2.8	38.1	20.1	541.2
32	9/13/78	6	3	5.3	40.1	22.1	543.3
32	9/13/78	6	13	18.3	43.2	25.1	546.3
32	9/13/78	21	10	0.0	0.0	25.1	546.3
32	9/13/78	21	25	5.2	1.3	26.4	547.6
32	9/13/78	21	27	23.4	2.1	27.2	548.4
32	9/13/78	21	29	54.7	3.9	29.0	550.2
32	9/13/78	21	45	2.0	4.4	29.6	550.7
32	9/13/78	21	47	7.8	4.7	29.8	551.0
32	9/13/78	21	59	2.6	5.2	30.3	551.5
32	9/13/78	22	2	10.4	5.7	30.9	552.0
32	9/13/78	22	7	6.2	6.2	31.4	552.6
32	9/13/78	22	12	15.6	7.5	32.7	553.9
32	9/13/78	22	22	4.7	8.3	33.5	554.6
32	9/13/78	22	25	15.6	9.1	34.3	555.4
32	9/13/78	22	26	78.1	10.4	35.6	556.7
32	9/13/78	22	29	26.0	11.7	36.9	558.0
32	9/13/78	22	32	52.0	14.3	39.5	560.6
32	9/13/78	22	42	4.7	15.1	40.2	561.4
32	9/13/78	22	47	21.9	16.9	42.1	563.2
32	9/13/78	22	50	26.0	18.2	43.4	564.5
32	9/13/78	22	54	39.0	20.8	46.0	567.1
32	9/13/78	22	56	39.0	22.1	47.3	568.4
32	9/13/78	23	3	8.9	23.2	48.3	569.5
32	9/13/78	23	15	3.9	23.9	49.1	570.3
32	9/13/78	23	30	3.1	24.7	49.9	571.0
32	9/13/78	23	41	7.1	26.0	51.2	572.3
32	9/13/78	23	58	5.5	27.6	52.7	573.9
32	9/14/78	0	2	7.8	28.1	0.5	574.4
32	9/14/78	0	12	6.2	29.1	1.6	575.5
32	9/14/78	0	18	7.8	29.9	2.3	576.2
32	9/14/78	0	26	2.0	30.2	2.6	576.5
32	9/14/78	0	37	2.8	30.7	3.1	577.0
32	9/14/78	0	51	4.5	31.7	4.2	578.1
32	9/14/78	1	5	1.1	32.0	4.4	578.3
32	9/16/78			NO DATA	0.0	0.0	578.3
32	9/16/78			NO DATA	2.3	2.3	580.6
32	9/17/78	18	40	0.0	0.0	0.0	580.6
32	9/17/78	19	0	3.0	1.0	1.0	581.6
32	9/17/78	20	0	1.8	2.8	2.8	583.4
32	9/17/78	20	20	5.3	4.6	4.6	585.2
32	9/17/78	20	46	2.9	5.8	5.8	586.4
32	9/17/78	21	7	5.1	7.6	7.6	588.2
32	9/17/78	21	16	3.4	8.1	8.1	588.7
32	9/17/78	21	30	1.1	8.4	8.4	589.0
32	9/17/78	21	54	0.6	8.6	8.6	589.2
32	9/17/78	22	20	1.8	9.4	9.4	590.0
32	9/17/78	22	37	3.6	10.4	10.4	591.0
32	9/17/78	22	55	0.8	10.7	10.7	591.3
32	9/17/78	24	0	0.5	11.2	11.2	591.8
32	9/18/78	0	20	0.8	11.4	0.3	592.0
32	9/18/78	0	40	3.8	12.7	1.5	593.3
32	9/18/78	1	0	3.8	14.0	2.8	594.6
32	9/19/78	19	5	0.0	0.0	0.0	594.6
32	9/19/78	19	12	100.5	11.7	11.7	606.3
32	9/19/78	19	20	2.0	12.0	12.0	606.6
32	9/19/78	19	22	23.5	12.8	12.8	607.3
32	9/19/78	21	5	0.2	13.0	13.0	607.6
32	9/19/78	21	7	54.7	14.9	14.9	609.4
32	9/19/78	21	23	3.9	15.9	15.9	610.5
32	9/19/78	21	28	12.5	16.9	16.9	611.5
32	9/19/78	22	6	1.2	17.7	17.7	612.3
32	9/19/78	22	14	5.9	18.5	18.5	613.1
32	9/19/78	22	16	15.6	19.0	19.0	613.6
32	9/19/78	23	53	0.5	19.8	19.8	614.4
32	9/20/78	0	33	0.8	20.3	0.5	614.9
32	9/20/78	0	40	6.7	21.1	1.3	615.7
32	9/20/78	0	48	7.8	22.2	2.3	616.7
32	9/20/78	0	52	27.4	24.0	4.2	618.5
32	9/20/78	0	56	11.7	24.8	5.0	619.3
32	9/20/78	1	8	2.6	25.3	5.5	619.9
32	9/20/78	1	20	7.8	26.8	7.0	621.4
32	9/20/78	1	28	3.9	27.4	7.6	621.9
32	9/20/78	5	9	3.1	27.6	7.8	622.2
32	9/20/78	5	22	2.4	28.1	8.3	622.7
32	9/20/78	5	32	3.1	28.7	8.9	623.2
32	9/20/78	5	45	6.0	30.0	10.2	624.5
32	9/20/78	6	13	3.9	31.8	12.0	626.4
32	9/20/78	6	55	3.4	34.1	14.3	628.7
32	9/20/78	7	20	4.4	36.0	16.2	630.5
32	9/20/78	8	21	0.5	36.5	16.7	631.1
32	9/20/78	8	27	5.2	37.0	17.2	631.6
32	9/20/78	8	47	7.0	39.4	19.5	633.9
32	9/20/78	9	0	2.4	39.9	20.1	634.4
32	9/20/78	9	5	15.6	41.2	21.4	635.7
32	9/20/78	9	10	3.1	41.4	21.6	636.0
32	9/20/78	9	19	3.5	42.0	22.2	636.5
32	9/20/78	9	33	2.2	42.5	22.7	637.1
32	9/20/78	9	40	15.6	44.3	24.5	638.9
32	9/20/78	9	45	12.5	45.3	25.5	639.9

TABLE B1-14. CONTINUED

GAGE	DATE	HOUR	MIN	PRECIP INTENSITY MM/HR	ACCUMULATED STORM MM	PRECIPITATION DAY MM	PRECIPITATION YEAR MM
32	9/20/78	9	49	27.4	47.2	27.4	641.7
32	9/20/78	10	8	6.6	49.3	29.4	643.8
32	9/20/78	12	54	0.2	49.8	30.0	644.3
32	9/20/78	13	1	2.2	50.0	30.2	644.6
32	9/29/78			NO DATA	0.0	0.0	644.6
32	9/29/78			NO DATA	2.5	2.5	647.1
32	10/ 2/78	11	55	0.0	0.0	0.0	647.1
32	10/ 2/78	11	58	31.4	1.6	1.6	648.7
32	10/ 2/78	12	3	9.4	2.4	2.4	649.5
32	10/ 2/78	12	5	39.3	3.7	3.7	650.8
32	10/ 2/78	12	7	39.3	5.0	5.0	652.1
32	10/ 2/78	12	10	5.2	5.2	5.2	652.4
32	10/ 2/78	12	11	62.9	6.3	6.3	653.4
32	10/ 2/78	12	13	15.7	6.8	6.8	654.0
32	10/ 2/78	12	15	15.7	7.3	7.3	654.5
32	10/ 2/78	12	17	7.9	7.6	7.6	654.7
32	10/ 2/78	12	19	39.3	8.9	8.9	656.1
32	10/ 2/78	12	23	7.9	9.4	9.4	656.6
32	10/ 2/78	12	43	0.0	9.4	9.4	656.6
32	10/ 2/78	12	45	31.4	10.5	10.5	657.6
32	10/ 2/78	12	48	5.2	10.7	10.7	657.9
32	10/ 2/78	12	13	-0.9	11.3	11.3	658.4
32	10/ 2/78	13	0	0.3	11.5	11.5	658.7
32	10/ 2/78	13	10	1.6	11.8	11.8	658.9
32	10/ 2/78	13	21	1.4	12.0	12.0	659.2
32	10/ 2/78	13	33	1.3	12.3	12.3	659.5
32	10/ 2/78	13	44	4.3	13.1	13.1	660.2
32	10/ 2/78	13	51	2.2	13.4	13.4	660.5
32	10/ 2/78	14	6	1.0	13.6	13.6	660.8
32	10/ 2/78	14	15	3.5	14.1	14.1	661.3
32	10/ 2/78	14	33	1.7	14.7	14.7	661.8
32	10/ 2/78	14	48	4.2	15.7	15.7	662.9
32	10/ 2/78	15	3	2.1	16.2	16.2	663.4
32	10/ 2/78	15	15	2.6	16.8	16.8	663.9
32	10/ 3/78			NO DATA	0.0	0.0	663.9
32	10/ 3/78			NO DATA	2.5	2.5	666.4
32	10/ 9/78	10	40	0.0	0.0	0.0	666.4
32	10/ 9/78	10	43	32.0	1.6	1.6	668.0
32	10/ 9/78	10	46	6.4	1.9	1.9	668.4
32	10/ 9/78	10	50	19.2	3.2	3.2	669.6
32	10/ 9/78	10	54	4.8	3.5	3.5	670.0
32	10/ 9/78	10	57	12.8	4.2	4.2	670.6
32	10/ 9/78	11	5	4.8	4.8	4.8	671.2
32	10/ 9/78	11	13	2.4	5.1	5.1	671.6
32	10/ 9/78	16	45	0.0	5.1	5.1	671.6
32	10/ 9/78	16	57	1.6	5.4	5.4	671.9
32	10/ 9/78	16	59	57.6	7.4	7.4	673.8
32	10/ 9/78	17	6	8.2	8.3	8.3	674.8
32	10/ 9/78	17	10	4.8	8.6	8.6	675.1
32	10/ 9/78	17	23	1.5	9.0	9.0	675.4
32	10/ 9/78	17	28	3.8	9.3	9.3	675.7
32	10/ 9/78	18	5	1.6	10.2	10.2	676.7
32	10/ 9/78	18	9	9.6	10.9	10.9	677.3
32	10/ 9/78	18	20	3.5	11.5	11.5	678.0
32	10/ 9/78	19	10	0.4	11.8	11.8	678.3
32	10/ 9/78	19	15	7.7	12.5	12.5	678.9
32	10/ 9/78	19	18	32.0	14.1	14.1	680.5
32	10/ 9/78	19	21	12.8	14.7	14.7	681.2
32	10/ 9/78	19	26	3.8	15.0	15.0	681.5
32	10/ 9/78	19	33	11.0	16.3	16.3	682.8
32	10/ 9/78	20	10	1.6	17.3	17.3	683.7
32	10/22/78			NO DATA	0.0	0.0	683.7
32	10/22/78			NO DATA	3.0	3.0	686.8
32	11/ 5/78			NO DATA	0.0	0.0	686.8
32	11/ 5/78			NO DATA	1.0	1.0	687.8
32	11/12/78	2	50	0.0	0.0	0.0	687.8
32	11/12/78	2	58	5.8	0.8	0.8	688.6
32	11/12/78	3	8	4.6	1.5	1.5	689.3
32	11/12/78	3	20	2.6	2.1	2.1	689.8
32	11/12/78	3	45	4.9	4.1	4.1	691.9
32	11/12/78	4	5	1.5	4.6	4.6	692.4
32	11/12/78	4	50	0.3	4.9	4.9	692.7
32	11/12/78	5	10	2.3	5.7	5.7	693.4
32	11/12/78	5	39	0.5	5.9	5.9	693.7
32	11/12/78	6	4	1.2	6.4	6.4	694.2
32	11/12/78	6	15	2.8	6.9	6.9	694.7
32	11/12/78	6	25	1.5	7.2	7.2	695.0
32	11/12/78	6	53	1.7	8.0	8.0	695.8
32	11/12/78	7	5	5.1	9.0	9.0	696.8
32	11/12/78	7	8	15.4	9.8	9.8	697.6
32	11/12/78	7	13	6.2	10.3	10.3	698.1
32	11/12/78	7	50	1.3	11.1	11.1	698.8
32	11/12/78	8	0	12.3	13.1	13.1	700.9
32	11/12/78	8	8	5.8	13.9	13.9	701.7
32	11/12/78	8	13	3.1	14.1	14.1	701.9
32	11/12/78	8	18	6.2	14.7	14.7	702.4
32	11/12/78	8	38	0.8	14.9	14.9	702.7
32	11/12/78	8	50	9.0	16.7	16.7	704.5
32	11/12/78	9	3	2.4	17.2	17.2	705.0
32	11/12/78	9	30	1.7	18.0	18.0	705.8
32	11/12/78	10	43	0.4	18.5	18.5	706.3
32	11/12/78	10	52	1.7	18.8	18.8	706.6
32	11/12/78	10	55	25.7	20.1	20.1	707.8
32	11/12/78	11	5	1.5	20.3	20.3	708.1
32	11/12/78	11	8	15.4	21.1	21.1	708.9
32	11/12/78	11	14	7.7	21.9	21.9	709.6
32	11/12/78	11	30	2.9	22.6	22.6	710.4

TABLE B1-14. CONCLUDED

GAGE	DATE	HOUR	MIN	PRECIP INTENSITY MM/HR	ACCUMULATED PRECIPITATION STORM MM	DAY MM	YEAR MM
32	11/12/78	11	35	15.4	23.9	23.9	711.7
32	11/12/78	11	39	11.6	24.7	24.7	712.5
32	11/12/78	11	46	4.4	25.2	25.2	713.0
32	11/12/78	11	50	23.1	26.8	26.8	714.5
32	11/12/78	12	20	2.6	28.0	28.0	715.8
32	11/12/78	12	52	0.5	28.3	28.3	716.1
32	11/12/78	12	56	27.0	30.1	30.1	717.9
32	11/12/78	13	0	3.9	30.4	30.4	718.1
32	11/12/78	13	3	25.7	31.6	31.6	719.4
32	11/12/78	13	15	2.6	32.2	32.2	719.9
32	11/12/78	13	16	30.9	32.7	32.7	720.4
32	11/12/78	13	31	3.1	33.4	33.4	721.2
32	11/12/78	13	48	0.9	33.7	33.7	721.5
32	11/12/78	13	53	6.2	34.2	34.2	722.0
32	11/12/78	14	6	1.2	34.5	34.5	722.2
32	11/12/78	14	9	5.1	34.7	34.7	722.5
32	11/12/78	14	16	2.2	35.0	35.0	722.8
32	11/12/78	14	23	4.4	35.5	35.5	723.3
32	11/12/78	14	35	5.1	36.5	36.5	724.3
32	11/12/78	14	46	7.0	37.8	37.8	725.6
32	11/12/78	15	1	1.0	38.1	38.1	725.8
32	11/12/78	15	10	1.7	38.3	38.3	726.1
32	11/12/78	15	12	7.7	38.6	38.6	726.4
32	11/12/78	15	27	1.0	38.8	38.8	726.6
32	11/12/78	15	29	15.4	39.4	39.4	727.1
32	11/12/78	15	43	2.2	39.9	39.9	727.6
32	11/12/78	18	20	0.3	40.6	40.6	728.4

GAGE	DATE	HOUR	MIN	PRECIP INTENSITY MM/HR	ACCUMULATED PRECIPITATION STORM MM	DAY MM	YEAR MM

TABLE B1-15. FOUR MILE CREEK WATERSHED PRECIPITATION DATA FOR 1978 GAGE 33

GAGE	DATE	HOUR	MIN	PRECIP INTENSITY MM/HR	ACCUMULATED PRECIPITATION STORM MM	DAY MM	YEAR MM
33	4/ 3/78			NO DATA	0.0	0.0	0.0
33	4/ 3/78			NO DATA	1.5	1.5	1.5
33	4/ 5/78	11	43	0.0	0.0	0.0	1.5
33	4/ 5/78	11	48	3.3	0.3	0.3	1.8
33	4/ 5/78	14	3	0.4	1.1	1.1	2.6
33	4/ 5/78	15	33	0.4	1.4	1.4	2.9
33	4/ 5/78	16	10	0.4	1.6	1.6	3.2
33	4/ 5/78	16	36	2.5	2.7	2.7	4.3
33	4/ 5/78	16	45	5.5	3.6	3.6	5.1
33	4/ 5/78	16	48	5.5	3.8	3.8	5.4
33	4/ 5/78	17	3	5.5	5.2	5.2	6.7
33	4/ 5/78	17	13	4.9	6.0	6.0	7.6
33	4/ 5/78	17	23	3.3	6.6	6.6	8.1
33	4/ 5/78	17	29	16.4	8.2	8.2	9.7
33	4/ 5/78	17	34	3.3	8.5	8.5	10.0
33	4/ 5/78	17	42	16.4	10.7	10.7	12.2
33	4/ 5/78	17	45	38.3	12.6	12.6	14.1
33	4/ 5/78	17	51	21.9	14.8	14.8	16.3
33	4/ 5/78	17	56	6.6	15.3	15.3	16.9
33	4/ 5/78	18	0	12.3	16.2	16.2	17.7
33	4/ 5/78	18	4	8.2	16.7	16.7	18.2
33	4/ 5/78	18	12	6.2	17.5	17.5	19.1
33	4/ 5/78	18	16	8.2	18.1	18.1	19.6
33	4/ 5/78	18	23	18.8	20.3	20.3	21.8
33	4/ 5/78	18	29	5.5	20.8	20.8	22.3
33	4/ 5/78	18	32	27.4	22.2	22.2	23.7
33	4/ 5/78	18	43	4.5	23.0	23.0	24.5
33	4/ 5/78	23	26	0.2	23.8	23.8	25.4
33	4/ 5/78	23	29	32.9	25.5	25.5	27.0
33	4/ 5/78	23	47	0.9	25.7	25.7	27.3
33	4/ 5/78	23	51	20.6	27.1	27.1	28.6
33	4/ 6/78	0	3	1.4	27.4	0.3	28.9
33	4/ 6/78	2	0	0.3	27.9	0.8	29.5
33	4/ 8/78			NO DATA	0.0	0.0	29.5
33	4/ 8/78			NO DATA	1.3	1.3	30.7
33	4/ 8/78			NO DATA	0.0	1.3	30.7
33	4/ 8/78			NO DATA	1.3	2.5	32.0
33	4/ 9/78	17	56	0.0	0.0	0.0	32.0
33	4/ 9/78	18	0	60.7	4.0	4.0	36.1
33	4/ 9/78	18	3	16.2	4.9	4.9	36.9
33	4/ 9/78	18	5	72.9	7.3	7.3	39.3
33	4/ 9/78	18	14	21.6	10.5	10.5	42.5
33	4/ 9/78	18	20	2.7	10.8	10.8	42.8
33	4/ 9/78	18	26	8.1	11.6	11.6	43.6
33	4/ 9/78	18	28	48.6	13.2	13.2	45.2
33	4/ 9/78	18	37	10.8	14.8	14.8	46.8
33	4/ 9/78	18	43	8.1	15.7	15.7	47.7
33	4/ 9/78	18	53	1.6	15.9	15.9	47.9
33	4/ 9/78	19	5	2.7	16.5	16.5	48.5
33	4/ 9/78	23	35	0.2	17.3	17.3	49.3
33	4/17/78	11	50	0.0	0.0	0.0	49.3
33	4/17/78	12	10	1.6	0.5	0.5	49.8
33	4/17/78	12	30	3.2	1.6	1.6	50.9
33	4/17/78	13	1	5.2	4.3	4.3	53.6
33	4/17/78	13	44	7.9	10.0	10.0	59.3
33	4/17/78	14	1	10.5	13.0	13.0	62.2
33	4/17/78	14	20	11.9	16.7	16.7	66.0
33	4/17/78	14	40	13.8	21.3	21.3	70.6
33	4/17/78	14	54	8.1	23.2	23.2	72.5
33	4/17/78	15	12	5.4	24.8	24.8	74.1
33	4/17/78	15	14	16.2	25.4	25.4	74.6
33	4/17/78	15	27	10.0	27.5	27.5	76.8
33	4/17/78	15	37	1.6	27.8	27.8	77.1
33	4/17/78	16	2	5.8	30.2	30.2	79.5
33	4/17/78	16	17	2.2	30.8	30.8	80.0
33	4/17/78	16	28	4.4	31.6	31.6	80.9
33	4/17/78	17	0	0.5	31.8	31.8	81.1
33	4/17/78	17	10	3.2	32.4	32.4	81.7
33	4/17/78	17	18	4.0	32.9	32.9	82.2
33	4/17/78	17	30	2.7	33.5	33.5	82.7
33	4/17/78	17	59	1.1	34.0	34.0	83.3
33	4/17/78	18	32	0.5	34.3	34.3	83.5
33	4/17/78	18	36	8.1	34.8	34.8	84.1
33	4/17/78	19	5	1.1	35.4	35.4	84.6
33	4/17/78	19	10	3.2	35.6	35.6	84.9
33	4/17/78	19	21	2.9	36.2	36.2	85.4
33	4/17/78	20	32	0.2	36.4	36.4	85.7
33	4/17/78	22	25	0.3	37.0	37.0	86.2
33	4/17/78	22	37	6.7	38.3	38.3	87.6
33	4/17/78	22	43	5.4	38.9	38.9	88.1
33	4/17/78	22	53	3.2	39.4	39.4	88.7
33	4/17/78	22	55	64.8	41.6	41.6	90.8
33	4/17/78	22	57	40.5	42.9	42.9	92.2
33	4/17/78	23	10	12.5	45.6	45.6	94.9
33	4/17/78	23	16	18.9	47.5	47.5	96.8
33	4/17/78	24	0	8.8	54.0	54.0	103.2
33	4/18/78	0	12	6.7	55.3	1.3	104.6
33	4/18/78	0	36	6.1	57.8	3.8	107.0
33	4/18/78	0	54	4.5	59.1	5.1	108.4
33	4/18/78	3	50	0.1	59.4	5.4	108.6
33	4/18/78	4	1	1.5	59.6	5.7	108.9
33	4/18/78	4	5	12.1	60.5	6.5	109.7
33	4/18/78	4	20	2.2	61.0	7.0	110.3
33	4/18/78	4	25	3.2	61.3	7.3	110.5
33	4/18/78	4	30	3.2	61.5	7.6	110.8
33	4/18/78	4	40	1.6	61.8	7.8	111.1
33	4/18/78	4	50	1.6	62.1	8.1	111.3
33	4/18/78	5	0	6.5	63.2	9.2	112.4
33	4/18/78	6	50	0.4	64.0	10.0	113.2

TABLE B1-15. CONTINUED

GAGE	DATE	HOUR	MIN	PRECIP INTENSITY MM/HR	ACCUMULATED STORM MM	PRECIPITATION DAY MM	PRECIPITATION YEAR MM
33	4/18/78	11	0	0.2	64.8	10.8	114.0
33	4/18/78	16	10	0.0	0.0	10.8	114.0
33	4/18/78	16	35	1.6	0.7	11.5	114.7
33	4/18/78	17	19	1.4	1.7	12.4	115.7
33	4/18/78	17	23	9.9	2.3	13.1	116.4
33	4/18/78	17	40	2.3	3.0	13.8	117.0
33	4/18/78	21	42	0.2	4.0	14.8	118.0
33	4/18/78	22	19	0.5	4.3	15.1	118.3
33	4/18/78	22	26	5.7	5.0	15.7	119.0
33	4/18/78	23	11	0.4	5.3	16.1	119.3
33	4/18/78	23	19	2.5	5.6	16.4	119.7
33	4/19/78	5	0	0.2	6.6	1.0	120.6
33	4/20/78			NO DATA	0.0	0.0	120.6
33	4/20/78			NO DATA	1.0	1.0	121.7
33	4/22/78			NO DATA	0.0	0.0	121.7
33	4/22/78			NO DATA	5.1	5.1	126.7
33	5/ 7/78	0	10	0.0	0.0	0.0	126.7
33	5/ 7/78	0	30	2.5	0.8	0.8	127.6
33	5/ 7/78	0	45	3.3	1.7	1.7	128.4
33	5/ 7/78	1	0	4.4	2.8	2.8	129.5
33	5/ 7/78	1	15	5.5	4.2	4.2	130.9
33	5/ 7/78	1	28	2.6	4.7	4.7	131.5
33	5/ 7/78	2	9	6.9	9.4	9.4	136.2
33	5/ 7/78	2	23	4.8	10.5	10.5	137.3
33	5/ 7/78	2	36	2.6	11.1	11.1	137.8
33	5/ 7/78	2	38	24.9	11.9	11.9	138.7
33	5/ 7/78	3	35	0.3	12.2	12.2	138.9
33	5/ 7/78			NO DATA	0.0	12.2	138.9
33	5/ 7/78			NO DATA	1.3	13.5	140.2
33	5/ 7/78	21	35	0.0	0.0	13.5	140.2
33	5/ 7/78	22	34	0.3	0.3	13.8	140.5
33	5/ 7/78	22	45	1.7	0.6	14.1	140.8
33	5/ 7/78	22	55	1.8	0.9	14.4	141.1
33	5/ 7/78	22	58	6.1	1.2	14.7	141.4
33	5/ 7/78	23	10	1.5	1.5	15.0	141.7
33	5/ 7/78	23	25	3.7	2.5	15.9	142.7
33	5/ 7/78	23	40	1.2	2.8	16.2	143.0
33	5/ 7/78	23	46	3.1	3.1	16.5	143.3
33	5/ 8/78	0	12	0.7	3.4	0.3	143.6
33	5/ 8/78	0	17	7.4	4.0	0.9	144.2
33	5/ 8/78	0	21	4.6	4.3	1.2	144.5
33	5/ 8/78	0	35	4.0	5.2	2.2	145.4
33	5/ 8/78	1	5	1.2	5.8	2.8	146.0
33	5/12/78	19	50	0.0	0.0	0.0	146.0
33	5/12/78	20	3	4.9	1.1	1.1	147.1
33	5/12/78	20	20	2.8	1.8	1.8	147.9
33	5/12/78	20	26	7.9	2.6	2.6	148.7
33	5/12/78	20	33	2.3	2.9	2.9	148.9
33	5/12/78	20	48	3.2	3.7	3.7	149.7
33	5/12/78	21	3	2.1	4.2	4.2	150.3
33	5/12/78	21	10	2.3	4.5	4.5	150.5
33	5/12/78	21	17	2.3	4.7	4.7	150.8
33	5/12/78	21	34	5.6	6.3	6.3	152.4
33	5/12/78	21	46	5.3	7.4	7.4	153.4
33	5/12/78	22	8	4.3	8.9	8.9	155.0
33	5/12/78	22	20	3.9	9.7	9.7	155.8
33	5/12/78	22	25	6.3	10.3	10.3	156.3
33	5/12/78	22	54	2.7	11.6	11.6	157.6
33	5/12/78	23	18	2.6	12.6	12.6	158.7
33	5/12/78	23	39	2.3	13.4	13.4	159.5
33	5/12/78	23	52	4.9	14.5	14.5	160.5
33	5/13/78	0	4	1.3	14.7	0.3	160.8
33	5/13/78	1	3	5.4	20.0	5.5	166.0
33	5/13/78	2	5	4.1	24.2	9.7	170.3
33	5/13/78	3	6	3.9	28.1	13.7	174.2
33	5/13/78	3	33	3.5	29.7	15.3	175.8
33	5/13/78	4	2	4.4	31.8	17.4	177.9
33	5/13/78	4	11	3.5	32.4	17.9	178.4
33	5/13/78	5	2	1.5	33.7	19.2	179.7
33	5/13/78	5	16	1.1	33.9	19.5	180.0
33	5/13/78	5	31	1.1	34.2	19.7	180.2
33	5/13/78	6	10	2.4	35.8	21.3	181.8
33	5/13/78	6	33	1.4	36.3	21.8	182.4
33	5/13/78	7	0	1.2	36.8	22.4	182.9
33	5/22/78			NO DATA	0.0	0.0	182.9
33	5/22/78			NO DATA	1.3	1.3	184.1
33	5/27/78	16	24	0.0	0.0	0.0	184.1
33	5/27/78	16	26	41.0	1.4	1.4	185.5
33	5/27/78	16	30	186.7	14.0	14.0	198.1
33	5/27/78	16	31	98.5	15.5	15.6	199.7
33	5/27/78	16	34	49.2	18.1	18.1	202.2
33	5/27/78	16	37	32.8	19.7	19.7	203.8
33	5/27/78	16	41	61.5	23.8	23.8	207.9
33	5/27/78	16	44	60.2	26.8	26.8	211.0
33	5/27/78	16	49	9.8	27.6	27.6	211.8
33	5/27/78	17	14	2.0	28.4	28.4	212.6
33	5/31/78	21	54	0.0	0.0	0.0	212.6
33	5/31/78	21	57	79.4	4.0	4.0	216.6
33	5/31/78	22	10	9.8	6.1	6.1	218.7
33	5/31/78	22	13	90.0	10.6	10.6	223.2
33	5/31/78	22	15	39.7	11.9	11.9	224.5
33	5/31/78	22	20	3.2	12.2	12.2	224.8
33	5/31/78	22	24	15.9	13.2	13.2	225.8
33	5/31/78	22	28	4.0	13.5	13.5	226.1

TABLE B1-15. CONTINUED

GAGE	DATE	HOUR	MIN	PRECIP INTENSITY MM/HR	ACCUMULATED STORM MM	PRECIPITATION DAY MM	PRECIPITATION YEAR MM
33	5/31/78	22	30	15.9	14.0	14.0	226.6
33	5/31/78	22	59	1.1	14.6	14.6	227.2
33	5/31/78	23	10	1.4	14.8	14.8	227.4
33	6/ 1/78	5	24	0.0	14.8	0.0	227.4
33	6/ 1/78	5	33	1.8	15.1	0.3	227.7
33	6/ 1/78	5	37	11.9	15.9	1.1	228.5
33	6/ 1/78	5	46	1.8	16.1	1.3	228.7
33	6/ 1/78	5	48	31.8	17.2	2.4	229.8
33	6/ 1/78	9	40	0.4	16.8	4.0	231.4
33	6/ 6/78			NO DATA	0.0	0.0	231.4
33	6/ 6/78			NO DATA	0.8	0.8	232.2
33	6/ 7/78			NO DATA	0.0	0.0	232.2
33	6/ 7/78			NO DATA	2.3	2.3	234.4
33	6/14/78	12	35	0.0	0.0	0.0	234.4
33	6/14/78	12	55	2.5	0.8	0.8	235.3
33	6/14/78	13	20	5.3	3.0	3.0	237.4
33	6/14/78	13	33	3.8	3.8	3.8	238.3
33	6/14/78	14	3	5.5	6.6	6.6	241.0
33	6/14/78	14	13	3.3	7.1	7.1	241.6
33	6/15/78	1	0	0.0	0.0	0.0	241.6
33	6/15/78	1	7	11.9	1.4	1.4	242.9
33	6/15/78	1	12	36.6	4.4	4.4	246.0
33	6/15/78	1	15	27.8	5.8	5.8	247.4
33	6/15/78	1	25	6.7	6.9	6.9	248.5
33	6/15/78	1	36	15.1	9.7	9.7	251.3
33	6/15/78	1	46	26.7	14.2	14.2	255.7
33	6/15/78	1	55	16.7	16.7	16.7	258.2
33	6/15/78	2	4	1.9	16.9	16.9	258.5
33	6/15/78	2	10	2.8	17.2	17.2	258.8
33	6/15/78	2	27	2.0	17.8	17.8	259.3
33	6/15/78	2	36	9.3	19.2	19.2	260.7
33	6/15/78	2	47	1.5	19.4	19.4	261.0
33	6/15/78	3	0	3.8	20.3	20.3	261.8
33	6/15/78	3	20	2.5	21.1	21.1	262.6
33	6/15/78	3	43	2.2	21.9	21.9	263.5
33	6/15/78	4	0	2.0	22.5	22.5	264.0
33	6/15/78	4	20	1.7	23.0	23.0	264.6
33	6/15/78	4	40	2.5	23.9	23.9	265.4
33	6/17/78			NO DATA	0.0	0.0	265.4
33	6/17/78			NO DATA	1.5	1.5	266.9
33	6/20/78	0	35	0.0	0.0	0.0	266.9
33	6/20/78	0	43	3.9	0.5	0.5	267.5
33	6/20/78	0	45	23.5	1.3	1.3	268.3
33	6/20/78	0	48	5.2	1.6	1.6	268.5
33	6/20/78	0	53	56.3	6.3	6.3	273.2
33	6/20/78	1	0	26.8	9.4	9.4	276.3
33	6/20/78	1	7	20.1	11.7	11.7	278.7
33	6/20/78	1	12	6.3	12.2	12.2	279.2
33	6/20/78	1	15	20.8	13.3	13.3	280.2
33	6/20/78	1	18	5.2	13.5	13.5	280.5
33	6/20/78	1	21	20.8	14.6	14.6	281.5
33	6/20/78	1	33	11.7	16.9	16.9	283.9
33	6/20/78	1	41	2.0	17.2	17.2	284.1
33	6/20/78	1	51	7.8	18.5	18.5	285.4
33	6/20/78	1	59	9.8	19.8	19.8	286.8
33	6/20/78	2	2	26.1	21.1	21.1	288.1
33	6/20/78	2	15	7.2	22.7	22.7	289.6
33	6/20/78	2	24	6.9	23.7	23.7	290.7
33	6/20/78	2	46	7.1	26.3	26.3	293.3
33	6/20/78	2	51	6.3	26.8	26.8	293.8
33	6/20/78	3	31	1.6	27.9	27.9	294.8
33	6/20/78	3	51	1.6	28.4	28.4	295.3
33	6/20/78	4	17	0.6	28.7	28.7	295.6
33	6/20/78	4	35	5.2	30.2	30.2	297.2
33	6/23/78			NO DATA	0.0	0.0	297.2
33	6/23/78			NO DATA	0.8	0.8	297.9
33	6/26/78			NO DATA	0.0	0.0	297.9
33	6/26/78			NO DATA	0.8	0.8	298.7
33	6/28/78			NO DATA	0.0	0.0	298.7
33	6/28/78			NO DATA	1.5	1.5	300.2
33	7/ 2/78			NO DATA	0.0	0.0	300.2
33	7/ 2/78			NO DATA	5.1	5.1	305.3
33	7/ 6/78	1	21	0.0	0.0	0.0	305.3
33	7/ 6/78	1	30	6.8	1.0	1.0	306.3
33	7/ 6/78	1	32	7.6	1.3	1.3	306.6
33	7/ 6/78	1	36	38.1	3.8	3.8	309.1
33	7/ 6/78	1	42	5.1	4.3	4.3	309.6
33	7/ 6/78	1	46	11.4	5.1	5.1	310.4
33	7/ 6/78	1	48	45.7	6.6	6.6	311.9
33	7/ 6/78	1	51	15.2	7.4	7.4	312.7
33	7/ 6/78	2	5	4.4	8.4	8.4	313.7
33	7/ 6/78	2	45	0.8	8.9	8.9	314.2
33	7/ 6/78	3	20	0.9	9.4	9.4	314.7
33	7/ 6/78	3	44	1.9	10.2	10.2	315.5
33	7/ 6/78	3	55	2.8	10.7	10.7	316.0
33	7/ 6/78	22	40	0.0	0.0	10.7	316.0
33	7/ 6/78	22	50	4.4	0.7	11.4	316.7
33	7/ 6/78	23	34	1.3	1.7	12.4	317.7
33	7/ 6/78	23	50	1.8	2.2	12.9	318.2
33	7/ 7/78	2	0	0.3	2.9	0.7	318.9
33	7/ 7/78	2	10	1.5	3.2	1.0	319.1
33	7/ 7/78	2	45	2.9	4.9	2.7	320.8

TABLE B1-15. CONTINUED

GAGE	DATE	HOUR	MIN	PRECIP INTENSITY MM/HR	ACCUMULATED STORM MM	PRECIPITATION DAY MM	PRECIPITATION YEAR MM
33	7/ 7/78	3	0	2.9	5.6	3.4	321.6
33	7/ 8/78	23	34	0.0	0.0	0.0	321.6
33	7/ 8/78	23	36	24.1	0.8	0.8	322.4
33	7/ 8/78	23	40	4.0	1.1	1.1	322.6
33	7/ 8/78	23	54	3.4	1.9	1.9	323.4
33	7/ 9/78	0	30	0.4	2.1	0.3	323.7
33	7/ 9/78	0	40	1.6	2.4	0.5	324.0
33	7/ 9/78	1	0	1.6	2.9	1.1	324.5
33	7/ 9/78	1	57	1.4	4.3	2.4	325.8
33	7/ 9/78	2	0	16.0	5.1	3.2	326.6
33	7/12/78			NO DATA	0.0	0.0	326.6
33	7/12/78			NO DATA	3.8	3.8	330.4
33	7/17/78	5	26	0.0	0.0	0.0	330.4
33	7/17/78	5	27	73.6	1.2	1.2	331.7
33	7/17/78	5	45	1.6	1.7	1.7	332.2
33	7/17/78	5	51	4.9	2.2	2.2	332.7
33	7/17/78	6	4	1.1	2.5	2.5	332.9
33	7/17/78	6	6	22.1	3.2	3.2	333.6
33	7/17/78	6	10	3.7	3.4	3.4	333.9
33	7/17/78	6	45	0.8	3.9	3.9	334.4
33	7/17/78	6	53	3.7	4.4	4.4	334.9
33	7/17/78	7	32	0.4	4.7	4.7	335.1
33	7/17/78	10	35	0.2	5.4	5.4	335.8
33	7/17/78	11	8	0.4	5.6	5.6	336.1
33	7/17/78	11	10	7.4	5.9	5.9	336.3
33	7/17/78	11	55	0.3	6.1	6.1	336.6
33	7/17/78	11	57	7.4	6.4	6.4	336.8
33	7/17/78	12	3	2.5	6.6	6.6	337.1
33	7/17/78	12	17	1.1	6.9	6.9	337.3
33	7/17/78	12	20	4.9	7.1	7.1	337.6
33	7/18/78	4	53	0.0	0.0	0.0	337.6
33	7/18/78	5	0	4.5	0.5	0.5	338.1
33	7/18/78	5	25	2.5	1.6	1.6	339.1
33	7/18/78	5	36	5.7	2.6	2.6	340.2
33	7/18/78	6	18	2.3	4.2	4.2	341.8
33	7/18/78	6	29	12.9	6.6	6.6	344.1
33	7/18/78	7	50	0.8	7.6	7.6	345.2
33	7/18/78	20	36	0.0	0.0	7.6	345.2
33	7/18/78	20	50	33.8	7.9	15.5	353.1
33	7/18/78	20	56	13.1	9.2	16.8	354.4
33	7/18/78	21	10	1.1	9.5	17.1	354.6
33	7/18/78	21	20	6.3	10.5	18.1	355.7
33	7/18/78	22	4	3.2	12.9	20.5	358.1
33	7/18/78	22	24	4.7	14.5	22.1	359.6
33	7/18/78	22	37	4.9	15.5	23.1	360.7
33	7/19/78	1	51	0.1	15.8	0.3	361.0
33	7/19/78	1	57	2.6	16.0	0.5	361.2
33	7/19/78	2	0	47.3	18.4	2.9	363.6
33	7/19/78	2	2	39.4	19.7	4.2	364.9
33	7/19/78	2	7	12.6	20.8	5.3	365.9
33	7/19/78	3	28	0.0	20.8	5.3	365.9
33	7/19/78	3	30	15.8	21.3	5.8	366.5
33	7/19/78	4	53	0.4	21.8	6.3	367.0
33	7/19/78	4	55	15.8	22.4	6.8	367.5
33	7/20/78			NO DATA	0.0	0.0	367.5
33	7/20/78			NO DATA	3.0	3.0	370.6
33	7/21/78			NO DATA	0.0	0.0	370.6
33	7/21/78			NO DATA	2.0	2.0	372.6
33	7/22/78			NO DATA	0.0	0.0	372.6
33	7/22/78			NO DATA	3.8	3.8	376.4
33	7/26/78			NO DATA	0.0	0.0	376.4
33	7/26/78			NO DATA	6.3	6.3	382.8
33	8/17/78			NO DATA	0.0	0.0	382.8
33	8/17/78			NO DATA	2.0	2.0	384.8
33	8/21/78	12	7	0.0	0.0	0.0	384.8
33	8/21/78	12	47	3.5	2.3	2.3	387.1
33	8/21/78	13	0	4.0	3.2	3.2	388.0
33	8/21/78	13	20	2.6	4.1	4.1	388.9
33	8/21/78	13	31	3.2	4.7	4.7	389.5
33	8/21/78	13	46	2.3	5.3	5.3	390.1
33	8/21/78	13	51	3.5	5.6	5.6	390.4
33	8/21/78	14	0	1.9	5.8	5.8	390.6
33	8/21/78	14	27	0.6	6.1	6.1	390.9
33	8/21/78	14	34	5.0	6.7	6.7	391.5
33	8/21/78	14	41	0.0	6.7	6.7	391.5
33	8/21/78	14	45	30.7	8.8	8.8	393.6
33	8/21/78	14	55	14.0	11.1	11.1	395.9
33	8/21/78	15	10	5.8	12.6	12.6	397.4
33	8/21/78	15	21	8.0	14.0	14.0	398.8
33	8/21/78	15	25	13.2	14.9	14.9	399.7
33	8/21/78	15	32	2.5	15.2	15.2	400.0
33	8/21/78	15	34	52.6	17.0	17.0	401.8
33	8/21/78	15	45	4.8	17.8	17.8	402.6
33	8/21/78	16	0	1.2	18.1	18.1	402.9
33	8/21/78	16	2	8.8	18.4	18.4	403.2
33	8/21/78	16	4	26.3	19.3	19.3	404.1
33	8/26/78	5	58	0.0	0.0	0.0	404.1
33	8/26/78	6	2	11.4	0.8	0.8	404.9
33	8/26/78	6	7	3.0	1.0	1.0	405.1
33	8/26/78	6	10	30.5	2.5	2.5	406.6
33	8/26/78	6	20	4.6	3.3	3.3	407.4
33	8/26/78	14	40	0.2	4.6	4.6	408.7

TABLE B1-15. CONTINUED

GAGE	DATE	HOUR	MIN	PRECIP INTENSITY MM/HR	ACCUMULATED STORM MM	PRECIPITATION DAY MM	PRECIPITATION YEAR MM
33	8/26/78	14	42	15.2	5.1	5.1	409.2
33	8/26/78	14	54	1.3	5.3	5.3	409.4
33	8/26/78	14	57	25.4	6.6	6.6	410.7
33	8/26/78	16	6	0.9	7.6	7.6	411.7
33	8/26/78	16	9	25.4	8.9	8.9	413.0
33	8/26/78	20	18	0.0	0.0	8.9	413.0
33	8/26/78	20	25	9.0	1.0	9.9	414.0
33	8/26/78	20	33	21.0	3.8	12.7	416.8
33	8/26/78	20	36	14.0	4.5	13.4	417.5
33	8/26/78	20	38	52.4	6.3	15.2	419.3
33	8/26/78	20	42	131.2	15.0	23.9	428.0
33	8/26/78	20	47	104.9	23.8	32.7	436.8
33	8/26/78	20	53	122.4	36.0	44.9	449.0
33	8/26/78	21	0	45.0	41.3	50.2	454.3
33	8/26/78	21	1	230.9	45.1	54.0	458.1
33	8/26/78	21	8	42.0	50.0	58.9	463.0
33	8/26/78	21	22	15.0	53.5	62.4	466.5
33	8/26/78	21	35	9.7	55.6	64.5	468.6
33	8/26/78	21	50	4.2	56.7	65.5	469.6
33	8/26/78	22	0	4.2	57.4	66.2	470.3
33	8/26/78	22	10	2.1	57.7	66.6	470.7
33	8/26/78	22	50	2.1	59.1	68.0	472.1
33	8/26/78	23	14	0.9	59.5	68.3	472.4
33	8/26/78	23	36	1.9	60.2	69.0	473.1
33	8/26/78	23	38	10.5	60.5	69.4	473.5
33	8/26/78	23	50	0.0	60.5	69.4	473.5
33	8/27/78	0	22	2.6	61.9	1.4	474.9
33	8/27/78	1	5	1.5	63.0	2.4	475.9
33	8/27/78	3	50	0.4	64.0	3.5	477.0
33	8/27/78	7	0	0.1	64.4	3.8	477.3
33	8/27/78	7	10	6.3	65.4	4.9	478.4
33	8/27/78	7	20	2.1	65.7	5.2	478.7
33	8/27/78	7	55	1.2	66.4	5.9	479.4
33	8/27/78	8	13	3.5	67.5	7.0	480.5
33	8/27/78	8	40	0.8	67.8	7.3	480.8
33	8/27/78	10	20	0.6	68.9	8.4	481.9
33	8/27/78	12	10	0.4	69.6	9.1	482.6
33	8/27/78			NO DATA	0.0	9.1	482.6
33	8/27/78			NO DATA	1.3	10.4	483.8
33	9/12/78	20	54	0.0	0.0	0.0	483.8
33	9/12/78	20	57	52.8	2.6	2.6	486.5
33	9/12/78	22	33	0.5	3.4	3.4	487.3
33	9/12/78	22	41	7.9	4.5	4.5	488.3
33	9/12/78	22	53	1.3	4.8	4.8	488.6
33	9/12/78	23	6	9.8	6.9	6.9	490.7
33	9/12/78	23	10	7.9	7.4	7.4	491.2
33	9/12/78	23	17	22.6	10.0	10.0	493.9
33	9/12/78	23	20	10.6	10.6	10.6	494.4
33	9/12/78	23	23	15.8	11.4	11.4	495.2
33	9/12/78	23	27	7.9	11.9	11.9	495.7
33	9/12/78	23	30	26.4	13.2	13.2	497.1
33	9/12/78	23	39	8.8	14.5	14.5	498.4
33	9/12/78	23	50	2.9	15.1	15.1	498.9
33	9/13/78	0	21	1.5	15.8	9.8	499.7
33	9/13/78	0	28	34.0	19.8	4.8	503.7
33	9/13/78	0	45	8.4	22.2	7.1	506.0
33	9/13/78	0	59	2.3	22.7	7.7	506.6
33	9/13/78	2	0	0.3	23.0	7.9	506.8
33	9/13/78	2	2	23.8	23.8	8.7	507.6
33	9/13/78	2	5	15.8	24.6	9.5	508.4
33	9/13/78	2	26	0.8	24.8	9.8	508.7
33	9/13/78	2	29	10.6	25.4	10.3	509.2
33	9/13/78	2	44	1.1	25.6	10.6	509.5
33	9/13/78	2	53	1.8	25.9	10.8	509.7
33	9/13/78	3	10	1.9	26.4	11.4	510.3
33	9/13/78	3	28	7.9	28.8	13.7	512.6
33	9/13/78	3	33	3.2	29.1	14.0	512.9
33	9/13/78	3	39	2.6	29.3	14.3	513.2
33	9/13/78	3	47	5.9	30.1	15.1	514.0
33	9/13/78	4	35	0.7	30.6	15.6	514.5
33	9/13/78	4	42	4.5	31.2	16.1	515.0
33	9/13/78	5	4	2.9	32.2	17.2	516.1
33	9/13/78	5	16	10.6	34.3	19.3	518.2
33	9/13/78	5	20	4.0	34.6	19.5	518.4
33	9/13/78	5	41	3.0	35.7	20.6	519.5
33	9/13/78	5	47	7.9	36.5	21.4	520.3
33	9/13/78	5	55	5.9	37.2	22.2	521.1
33	9/13/78	6	35	3.6	39.6	24.6	523.5
33	9/13/78	21	22	0.0	0.0	24.6	523.5
33	9/13/78	21	25	5.3	0.3	24.8	523.7
33	9/13/78	21	28	47.7	2.6	27.2	526.1
33	9/13/78	21	35	4.5	3.2	27.7	526.6
33	9/13/78	22	5	1.6	4.0	28.5	527.4
33	9/13/78	22	9	11.9	4.8	29.3	528.2
33	9/13/78	22	18	3.5	5.3	29.9	528.8
33	9/13/78	22	20	23.8	6.1	30.7	529.6
33	9/13/78	22	23	5.3	6.4	30.9	529.8
33	9/13/78	22	30	29.5	9.8	34.4	533.3
33	9/13/78	22	38	23.8	13.0	37.5	536.4
33	9/13/78	22	41	5.3	13.2	37.8	536.7
33	9/13/78	22	47	13.2	14.6	39.1	538.0
33	9/13/78	22	51	4.0	14.8	39.4	538.3
33	9/13/78	22	53	71.5	17.2	41.8	540.7
33	9/13/78	22	55	71.5	19.6	44.2	543.1
33	9/13/78	23	6	14.4	22.2	46.8	545.7
33	9/13/78	23	22	4.0	23.3	47.9	546.8
33	9/13/78	23	36	3.4	24.1	48.7	547.6
33	9/13/78	23	41	9.5	24.9	49.5	548.4
33	9/13/78	23	53	6.6	26.2	50.8	549.7
33	9/14/78	0	18	5.1	28.3	2.1	551.8

TABLE B1-15. CONTINUED

GAGE	DATE	HOUR	MIN	PRECIP INTENSITY MM/HR	ACCUMULATED PRECIPITATION STORM MM	DAY MM	YEAR MM
33	9/14/78	0	36	3.5	29.4	3.2	552.9
33	9/14/78	0	45	5.3	30.2	4.0	553.7
33	9/14/78	1	1	2.0	30.7	4.5	554.2
33	9/14/78	2	5	0.2	31.0	4.8	554.5
33	9/16/78			NO DATA	0.0	0.0	554.5
33	9/16/78			NO DATA	5.1	5.1	559.5
33	9/17/78	18	40	0.0	0.0	0.0	559.5
33	9/17/78	18	50	4.6	0.8	0.8	560.3
33	9/17/78	19	7	1.8	1.3	1.3	560.8
33	9/17/78	19	45	1.6	2.3	2.3	561.9
33	9/17/78	19	55	1.5	2.6	2.6	562.1
33	9/17/78	21	3	4.8	8.0	8.0	567.5
33	9/17/78	21	18	4.1	9.0	9.0	568.6
33	9/17/78	21	30	1.3	9.3	9.3	568.8
33	9/17/78	21	57	1.1	9.8	9.8	569.3
33	9/17/78	22	20	2.0	10.6	10.6	570.1
33	9/17/78	22	34	4.4	11.6	11.6	571.1
33	9/17/78	22	50	2.9	12.4	12.4	571.9
33	9/18/78	0	20	0.5	13.2	0.8	572.7
33	9/18/78	0	40	4.6	14.7	2.3	574.2
33	9/18/78	2	22	0.3	15.2	2.8	574.8
33	9/18/78	2	50	1.7	16.0	3.6	575.5
33	9/19/78	19	14	0.0	0.0	0.0	575.5
33	9/19/78	19	18	116.6	7.8	7.8	583.3
33	9/19/78	19	25	4.4	8.3	8.3	583.8
33	9/19/78	19	29	62.2	12.4	12.4	588.0
33	9/19/78	19	34	15.5	13.7	13.7	589.3
33	9/19/78	20	58	0.2	14.0	14.0	589.5
33	9/19/78	21	3	24.9	16.1	16.1	591.6
33	9/19/78	21	14	7.1	17.4	17.4	592.9
33	9/19/78	21	18	31.1	19.4	19.4	595.0
33	9/19/78	21	25	11.1	20.7	20.7	596.3
33	9/19/78	21	31	2.6	21.0	21.0	596.5
33	9/19/78	21	36	9.3	21.8	21.8	597.3
33	9/19/78	22	23	1.7	23.1	23.1	598.6
33	9/19/78	22	27	3.9	23.3	23.3	598.8
33	9/20/78	0	40	9.4	24.1	0.8	599.6
33	9/20/78	0	53	2.4	24.6	1.3	600.1
33	9/20/78	0	56	20.7	25.6	2.3	601.2
33	9/20/78	1	2	13.0	26.9	3.6	602.5
33	9/20/78	1	12	3.1	27.5	4.1	603.0
33	9/20/78	1	35	6.1	29.8	6.5	605.3
33	9/20/78	5	23	0.1	30.3	7.0	605.8
33	9/20/78	5	29	2.6	30.6	7.3	606.1
33	9/20/78	5	48	6.5	32.6	9.3	608.2
33	9/20/78	6	20	3.4	34.5	11.1	610.0
33	9/20/78	6	43	2.0	35.2	11.9	610.8
33	9/20/78	7	11	3.3	36.8	13.5	612.3
33	9/20/78	7	20	5.2	37.6	14.2	613.1
33	9/20/78	8	26	0.7	38.3	15.0	613.9
33	9/20/78	8	50	7.1	41.2	17.9	616.7
33	9/20/78	9	5	4.1	42.2	18.9	617.8
33	9/20/78	9	10	9.3	43.0	19.7	618.5
33	9/20/78	9	15	3.1	43.3	19.9	618.8
33	9/20/78	9	20	9.3	44.0	20.7	619.6
33	9/20/78	9	39	0.8	44.3	21.0	619.8
33	9/20/78	9	51	10.4	46.4	23.1	621.9
33	9/20/78	9	55	23.3	47.9	24.6	623.5
33	9/20/78	9	59	15.5	49.0	25.6	624.5
33	9/20/78	10	15	4.9	50.3	26.9	625.8
33	9/20/78	12	55	0.3	51.0	27.7	626.6
33	9/20/78	14	40	0.6	52.1	28.8	627.6
33	9/29/78			NO DATA	0.0	0.0	627.6
33	9/29/78			NO DATA	2.5	2.5	630.1
33	10/ 2/78	11	50	0.0	0.0	0.0	630.1
33	10/ 2/78	12	0	8.0	1.3	1.3	631.5
33	10/ 2/78	12	2	24.0	2.1	2.1	632.3
33	10/ 2/78	12	4	64.0	4.3	4.3	634.4
33	10/ 2/78	12	13	12.4	6.1	6.1	636.3
33	10/ 2/78	12	15	40.0	7.5	7.5	637.6
33	10/ 2/78	12	20	6.4	8.0	8.0	638.1
33	10/ 2/78	12	40	0.8	8.3	8.3	638.4
33	10/ 2/78	12	41	112.0	10.1	10.1	640.3
33	10/ 2/78	12	48	4.6	10.7	10.7	640.8
33	10/ 2/78	12	58	1.6	10.9	10.9	641.1
33	10/ 2/78	13	20	1.5	11.5	11.5	641.6
33	10/ 2/78	13	37	2.8	12.3	12.3	642.4
33	10/ 2/78	13	41	4.0	12.5	12.5	642.7
33	10/ 2/78	14	2	1.5	13.1	13.1	643.2
33	10/ 2/78	14	10	2.0	13.3	13.3	643.5
33	10/ 2/78	14	17	4.6	13.9	13.9	644.0
33	10/ 2/78	14	30	2.5	14.4	14.4	644.5
33	10/ 2/78	14	36	2.7	14.7	14.7	644.8
33	10 2/78	15	5	2.8	16.0	16.0	646.1
33	10/ 3/78			NO DATA	0.0	0.0	646.1
33	10/ 3/78			NO DATA	0.5	0.5	646.6
33	10/ 9/78	10	49	0.0	0.0	0.0	646.6
33	10/ 9/78	10	54	16.7	1.4	1.4	648.0
33	10/ 9/78	10	58	8.3	1.9	1.9	648.6
33	10/ 9/78	11	20	3.0	3.1	3.1	649.7
33	10/ 9/78	11	30	1.7	3.3	3.3	650.0
33	10/ 9/78	13	30	0.0	3.3	3.3	650.0
33	10/ 9/78	15	20	0.2	3.6	3.6	650.3
33	10/ 9/78	15	30	3.3	4.2	4.2	650.8
33	10/ 9/78	16	44	0.2	4.4	4.4	651.1
33	10/ 9/78	17	0	2.1	5.0	5.0	651.6
33	10/ 9/78	17	1	66.7	6.1	6.1	652.8

TABLE B1-15. CONTINUED

GAGE	DATE	HOUR	MIN	PRECIP INTENSITY MM/HR	ACCUMULATED STORM MM	PRECIPITATION DAY MM	PRECIPITATION YEAR MM
33	10/ 9/78	17	5	4.2	6.4	6.4	653.0
33	10/ 9/78	17	15	6.7	7.5	7.5	654.1
33	10/ 9/78	17	25	1.7	7.8	7.8	654.4
33	10/ 9/78	17	35	1.7	8.1	8.1	654.7
33	10/ 9/78	17	37	8.3	8.3	8.3	655.0
33	10/ 9/78	17	55	0.9	8.6	8.6	655.3
33	10/ 9/78	18	8	1.3	8.9	8.9	655.5
33	10/ 9/78	18	13	10.0	9.7	9.7	656.4
33	10/ 9/78	19	8	0.3	10.0	10.0	656.6
33	10/ 9/78	19	14	2.8	10.3	10.3	656.9
33	10/ 9/78	19	20	13.9	11.7	11.7	658.3
33	10/ 9/78	19	25	3.3	12.0	12.0	658.6
33	10/ 9/78	19	30	3.3	12.2	12.2	658.9
33	10/ 9/78	19	35	10.0	13.1	13.1	659.7
33	10/ 9/78	19	40	10.0	13.9	13.9	660.5
33	10/ 9/78	20	19	1.3	14.7	14.7	661.4
33	10/22/78			NO DATA	0.0	0.0	661.4
33	10/22/78			NO DATA	3.6	3.6	664.9
33	11/ 5/78			NO DATA	0.0	0.0	664.9
33	11/ 5/78			NO DATA	1.0	1.0	665.9
33	11/12/78	0	5	0.0	0.0	0.0	665.9
33	11/12/78	3	0	0.2	0.5	0.5	666.5
33	11/12/78	3	6	8.0	1.3	1.3	667.3
33	11/12/78	3	16	6.4	2.4	2.4	668.3
33	11/12/78	3	49	4.3	4.8	4.8	670.7
33	11/12/78	3	57	2.0	5.0	5.0	671.0
33	11/12/78	4	37	0.8	5.6	5.6	671.5
33	11/12/78	4	40	5.3	5.8	5.8	671.8
33	11/12/78	5	10	0.5	6.1	6.1	672.0
33	11/12/78	5	20	3.2	6.6	6.6	672.6
33	11/12/78	5	50	0.5	6.9	6.9	672.8
33	11/12/78	6	16	1.2	7.4	7.4	673.4
33	11/12/78	6	32	2.0	8.0	8.0	673.9
33	11/12/78	7	3	1.0	8.5	8.5	674.4
33	11/12/78	7	10	6.8	9.3	9.3	675.2
33	11/12/78	7	18	9.9	10.6	10.6	676.5
33	11/12/78	7	58	1.2	11.4	11.4	677.3
33	11/12/78	8	4	10.6	12.5	12.5	678.4
33	11/12/78	8	10	18.6	14.3	14.3	680.3
33	11/12/78	8	20	4.8	15.1	15.1	681.1
33	11/12/78	8	30	4.8	15.9	15.9	681.8
33	11/12/78	8	43	2.4	16.4	16.4	682.4
33	11/12/78	8	52	5.3	17.2	17.2	683.2
33	11/12/78	8	57	15.9	18.6	18.6	684.5
33	11/12/78	9	0	10.6	19.1	19.1	685.0
33	11/12/78	9	12	1.3	19.3	19.3	685.3
33	11/12/78	9	40	2.3	20.4	20.4	686.4
33	11/12/78	10	10	0.5	20.7	20.7	686.6
33	11/12/78	10	25	1.1	20.9	20.9	686.9
33	11/12/78	10	51	0.6	21.2	21.2	687.1
33	11/12/78	10	57	5.3	21.7	21.7	687.7
33	11/12/78	11	2	0.0	21.7	21.7	687.7
33	11/12/78	11	5	15.9	22.5	22.5	688.5
33	11/12/78	11	13	4.0	23.1	23.1	689.0
33	11/12/78	11	23	8.0	24.4	24.4	690.3
33	11/12/78	11	38	3.2	25.2	25.2	691.1
33	11/12/78	11	42	19.9	26.5	26.5	692.4
33	11/12/78	11	55	6.1	27.8	27.8	693.8
33	11/12/78	12	0	15.9	29.2	29.2	695.1
33	11/12/78	12	11	2.9	29.7	29.7	695.6
33	11/12/78	12	15	11.9	30.5	30.5	696.4
33	11/12/78	12	20	3.2	30.7	30.7	696.7
33	11/12/78	12	43	1.4	31.3	31.3	697.2
33	11/12/78	13	0	0.9	31.5	31.5	697.5
33	11/12/78	13	3	10.6	32.1	32.1	698.0
33	11/12/78	13	8	3.2	32.3	32.3	698.3
33	11/12/78	13	11	5.3	32.6	32.6	698.5
33	11/12/78	13	15	4.0	32.9	32.9	698.8
33	11/12/78	13	20	3.2	33.1	33.1	699.1
33	11/12/78	13	23	21.2	34.2	34.2	700.1
33	11/12/78	13	30	6.8	35.0	35.0	700.9
33	11/12/78	13	40	1.6	35.3	35.3	701.2
33	11/12/78	14	0	1.6	35.8	35.8	701.7
33	11/12/78	14	5	3.2	36.0	36.0	702.0
33	11/12/78	14	13	2.0	36.3	36.3	702.3
33	11/12/78	14	17	8.0	36.8	36.8	702.8
33	11/12/78	14	23	2.7	37.1	37.1	703.0
33	11/12/78	14	28	6.4	37.6	37.6	703.6
33	11/12/78	14	37	3.5	38.2	38.2	704.1
33	11/12/78	14	52	6.4	39.8	39.8	705.7
33	11/12/78	15	19	2.4	40.8	40.8	706.8
33	11/12/78	15	34	1.1	41.1	41.1	707.0
33	11/12/78	15	36	15.9	41.6	41.6	707.6
33	11/12/78	15	50	2.3	42.1	42.1	708.1
33	11/12/78	16	33	0.4	42.4	42.4	708.3
33	11/12/78	18	50	0.1	42.7	42.7	708.6
33	11/16/78			NO DATA	0.0	0.0	708.6
33	11/16/78			NO DATA	5.1	5.1	713.7
33	11/17/78			NO DATA	0.0	0.0	713.7
33	11/17/78			NO DATA	31.8	31.8	745.4
33	12/ 1/78			SNOW	0.0	0.0	745.4
33	12/ 1/78			SNOW	5.3	5.3	750.8
33	12/ 2/78			SNOW	0.0	0.0	750.8
33	12/ 2/78			SNOW	5.1	5.1	755.9
33	12/ 5/78			SNOW	0.0	0.0	755.9
33	12/ 5/78			SNOW	3.0	3.0	758.9

TABLE B1-15. CONCLUDED

GAGE	DATE	HOUR MIN	PRECIP INTENSITY MM/HR	ACCUMULATED STORM MM	PRECIPITATION DAY MM	PRECIPITATION YEAR MM
33	12/ 7/78		SNOW	0.0	0.0	758.9
33	12/ 7/78		SNOW	1.5	1.5	760.4
33	12/23/78		SNOW	0.0	0.0	760.4
33	12/23/78		SNOW	1.0	1.0	761.4
33	12/24/78		SNOW	0.0	0.0	761.4
33	12/24/78		SNOW	0.5	0.5	761.9
33	12/29/78		SNOW	0.0	0.0	761.9
33	12/29/78		SNOW	2.3	2.3	764.2
33	12/31/78		SNOW	0.0	0.0	764.2
33	12/31/78		SNOW	6.9	6.9	771.1

GAGE	DATE	HOUR MIN	PRECIP INTENSITY MM/HR	ACCUMULATED STORM MM	PRECIPITATION DAY MM	PRECIPITATION YEAR MM

TABLE B1-16. FOUR MILE CREEK WATERSHED PRECIPITATION DATA FOR 1978 GAGE 34

GAGE	DATE	HOUR	MIN	PRECIP INTENSITY MM/HR	ACCUMULATED STORM MM	PRECIPITATION DAY MM	PRECIPITATION YEAR MM
34	4/ 3/78			NO DATA	0.0	0.0	0.0
34	4/ 3/78			NO DATA	2.0	2.0	2.0
34	4/ 5/78	11	45	0.0	0.0	0.0	2.0
34	4/ 5/78	15	20	0.2	0.6	0.6	2.6
34	4/ 5/78	15	27	2.4	0.8	0.8	2.9
34	4/ 5/78	16	5	0.4	1.1	1.1	3.1
34	4/ 5/78	16	25	3.3	2.2	2.2	4.3
34	4/ 5/78	16	37	1.4	2.5	2.5	4.5
34	4/ 5/78	16	43	8.3	3.3	3.3	5.4
34	4/ 5/78	16	50	9.5	4.5	4.5	6.5
34	4/ 5/78	16	55	3.3	4.7	4.7	6.8
34	4/ 5/78	17	23	4.2	6.7	6.7	8.7
34	4/ 5/78	17	25	25.0	7.5	7.5	9.5
34	4/ 5/78	17	31	13.9	8.9	8.9	10.9
34	4/ 5/78	17	37	36.2	12.5	12.5	14.6
34	4/ 5/78	17	40	11.1	13.1	13.1	15.1
34	4/ 5/78	17	42	66.8	15.3	15.3	17.3
34	4/ 5/78	17	54	9.7	17.2	17.2	19.3
34	4/ 5/78	18	7	10.3	19.5	19.5	21.5
34	4/ 5/78	18	12	16.7	20.9	20.9	22.9
34	4/ 5/78	18	19	26.2	23.9	23.9	26.0
34	4/ 5/78	18	30	9.1	25.6	25.6	27.6
34	4/ 5/78	18	35	13.4	26.7	26.7	28.7
34	4/ 5/78	23	23	0.1	27.0	27.0	29.0
34	4/ 5/78	23	25	8.3	27.3	27.3	29.3
34	4/ 5/78	23	45	0.0	27.3	27.3	29.3
34	4/ 5/78	23	47	16.7	27.8	27.8	29.9
34	4/ 6/78	0	19	0.5	28.1	0.3	30.1
34	4/ 6/78	0	25	5.6	28.7	0.8	30.7
34	4/ 6/78	1	23	0.0	28.7	0.8	30.7
34	4/ 6/78	1	25	16.7	29.2	1.4	31.2
34	4/ 8/78			NO DATA	0.0	0.0	31.2
34	4/ 8/78			NO DATA	1.5	1.5	32.8
34	4/ 8/78			NO DATA	0.0	1.5	32.8
34	4/ 8/78			NO DATA	1.5	3.0	34.3
34	4/ 9/78	18	8	0.0	0.0	0.0	34.3
34	4/ 9/78	18	11	31.3	1.6	1.6	35.9
34	4/ 9/78	18	20	7.0	2.6	2.6	36.9
34	4/ 9/78	18	27	31.3	6.3	6.3	40.6
34	4/ 9/78	18	30	52.2	8.9	8.9	43.2
34	4/ 9/78	18	33	52.2	11.5	11.5	45.8
34	4/ 9/78	18	40	6.7	12.3	12.3	46.6
34	4/ 9/78	18	44	39.2	14.9	14.9	49.2
34	4/ 9/78	18	52	13.7	16.7	16.7	51.0
34	4/ 9/78	19	4	2.6	17.2	17.2	51.5
34	4/ 9/78	19	12	5.9	18.0	18.0	52.3
34	4/ 9/78	19	20	2.0	18.3	18.3	52.6
34	4/ 9/78	19	30	1.6	18.5	18.5	52.8
34	4/17/78	11	50	0.0	0.0	0.0	52.8
34	4/17/78	12	25	1.8	1.1	1.1	53.9
34	4/17/78	12	40	4.3	2.1	2.1	55.0
34	4/17/78	13	0	4.8	3.8	3.8	56.6
34	4/17/78	13	26	8.1	7.3	7.3	60.1
34	4/17/78	13	45	7.6	9.7	9.7	62.5
34	4/17/78	13	55	16.1	12.4	12.4	65.2
34	4/17/78	14	27	9.6	17.5	17.5	70.3
34	4/17/78	14	36	9.0	18.8	18.8	71.6
34	4/17/78	14	43	16.1	20.7	20.7	73.5
34	4/17/78	14	54	7.3	22.0	22.0	74.9
34	4/17/78	15	17	4.9	23.9	23.9	76.7
34	4/17/78	15	20	10.7	24.5	24.5	77.3
34	4/17/78	15	30	4.8	25.3	25.3	78.1
34	4/17/78	15	40	3.2	25.8	25.8	78.6
34	4/17/78	15	46	8.1	26.6	26.6	79.4
34	4/17/78	16	0	5.8	27.9	27.9	80.8
34	4/17/78	16	13	2.5	28.5	28.5	81.3
34	4/17/78	16	22	1.8	28.8	28.8	81.6
34	4/17/78	16	28	13.4	30.1	30.1	82.9
34	4/17/78	17	27	0.5	30.6	30.6	83.5
34	4/17/78	17	40	2.5	31.2	31.2	84.0
34	4/17/78	18	30	1.0	32.0	32.0	84.8
34	4/17/78	19	9	1.2	32.8	32.8	85.6
34	4/17/78	19	18	3.6	33.3	33.3	86.2
34	4/17/78	22	24	0.2	33.9	33.9	86.7
34	4/17/78	22	41	6.6	35.7	35.7	88.6
34	4/17/78	22	55	1.2	36.0	36.0	88.8
34	4/17/78	22	56	80.6	37.4	37.4	90.2
34	4/17/78	22	59	32.2	39.0	39.0	91.8
34	4/17/78	23	6	13.8	40.6	40.6	93.4
34	4/17/78	23	15	23.3	44.1	44.1	96.9
34	4/17/78	23	20	12.9	45.1	45.1	98.0
34	4/17/78	23	26	2.7	45.4	45.4	98.2
34	4/17/78	24	0	8.5	50.3	50.3	103.1
34	4/18/78	0	14	5.8	51.6	1.3	104.4
34	4/18/78	0	17	10.8	52.1	1.9	105.0
34	4/18/78	0	40	6.3	54.6	4.3	107.4
34	4/18/78	3	51	0.2	55.1	4.8	107.9
34	4/18/78	3	55	4.0	55.4	5.1	108.2
34	4/18/78	4	5	3.2	55.9	5.6	108.7
34	4/18/78	4	10	12.9	57.0	6.7	109.8
34	4/18/78	4	17	2.3	57.2	7.0	110.1
34	4/18/78	4	26	1.8	57.5	7.3	110.3
34	4/18/78	4	51	1.9	58.3	8.1	111.1
34	4/18/78	5	5	4.6	59.4	9.1	112.2
34	4/18/78	7	0	0.4	60.2	9.9	113.0
34	4/18/78			NO DATA	0.0	9.9	113.0
34	4/18/78			NO DATA	4.3	14.3	117.3
34	4/19/78			NO DATA	0.0	0.0	117.3

TABLE B1-16. CONTINUED

GAGE	DATE	HOUR	MIN	PRECIP INTENSITY MM/HR	ACCUMULATED STORM MM	PRECIPITATION DAY MM	PRECIPITATION YEAR MM
34	4/19/78			NO DATA	0.8	0.8	118.1
34	4/20/78			NO DATA	0.0	0.0	118.1
34	4/20/78			NO DATA	0.8	0.8	118.9
34	4/22/78	21	5	0.0	0.0	0.0	118.9
34	4/22/78	21	38	1.6	0.9	0.9	119.8
34	4/22/78	22	0	1.6	1.5	1.5	120.3
34	4/22/78	22	25	3.5	2.9	2.9	121.8
34	4/22/78	22	34	7.8	4.1	4.1	123.0
34	4/22/78	23	20	1.9	5.6	5.6	124.5
34	5/ 7/78	0	30	0.0	0.0	0.0	124.5
34	5/ 7/78	1	12	6.0	4.2	4.2	128.7
34	5/ 7/78	1	32	3.4	5.4	5.4	129.8
34	5/ 7/78	2	13	6.6	9.9	9.9	134.3
34	5/ 7/78	2	31	4.7	11.3	11.3	135.7
34	5/ 7/78	2	50	1.8	11.9	11.9	136.3
34	5/ 7/78	4	25	0.4	12.4	12.4	136.9
34	5/ 7/78	4	27	8.5	12.7	12.7	137.2
34	5/ 7/78	22	35	0.0	0.0	12.7	137.2
34	5/ 7/78	22	41	6.5	0.6	13.3	137.8
34	5/ 7/78	23	10	2.0	1.6	14.3	138.8
34	5/ 7/78	23	26	2.4	2.3	15.0	139.4
34	5/ 7/78	23	43	1.1	2.6	15.3	139.8
34	5/ 7/78	23	46	6.5	2.9	15.6	140.1
34	5/ 8/78	0	14	0.7	3.2	0.3	140.4
34	5/ 8/78	0	16	9.7	3.6	0.6	140.7
34	5/ 8/78	0	35	5.1	5.2	2.3	142.4
34	5/ 8/78	1	20	0.9	5.8	2.9	143.0
34	5/12/78	20	10	0.0	0.0	0.0	143.0
34	5/12/78	20	45	1.7	1.0	1.0	144.0
34	5/12/78	21	27	1.8	2.3	2.3	145.3
34	5/12/78	21	47	9.0	5.3	5.3	148.3
34	5/12/78	21	55	7.5	6.3	6.3	149.3
34	5/12/78	22	9	2.1	6.8	6.8	149.8
34	5/12/78	22	33	4.4	8.5	8.5	151.5
34	5/12/78	23	20	2.9	10.8	10.8	153.8
34	5/13/78	0	15	3.3	13.8	3.0	156.8
34	5/13/78	0	30	5.0	15.0	4.3	158.0
34	5/13/78	0	40	10.5	16.8	6.0	159.8
34	5/13/78	0	54	5.4	18.0	7.3	161.0
34	5/13/78	0	58	3.8	18.3	7.5	161.3
34	5/13/78	1	8	4.5	19.0	8.3	162.0
34	5/13/78	1	12	7.5	19.5	8.8	162.5
34	5/13/78	1	23	2.7	20.0	9.3	163.0
34	5/13/78	1	58	6.4	23.8	13.0	166.8
34	5/13/78	2	4	5.0	24.3	13.5	167.3
34	5/13/78	2	25	5.7	26.3	15.5	169.3
34	5/13/78	3	5	3.0	28.3	17.5	171.3
34	5/13/78	3	18	2.3	28.8	18.0	171.8
34	5/13/78	4	10	4.3	32.6	21.8	175.6
34	5/13/78	4	45	2.1	33.8	23.1	176.8
34	5/13/78	5	10	1.2	34.3	23.6	177.3
34	5/13/78	5	33	1.3	34.8	24.1	177.8
34	5/13/78	7	10	1.4	37.1	26.3	180.1
34	5/22/78			NO DATA	0.0	0.0	180.1
34	5/22/78			NO DATA	1.0	1.0	181.1
34	5/27/78	16	0	0.0	0.0	0.0	181.1
34	5/27/78	16	1	127.1	2.1	2.1	183.2
34	5/27/78	16	3	7.9	2.4	2.4	183.5
34	5/27/78	16	20	0.9	2.6	2.6	183.7
34	5/27/78	16	25	111.2	11.9	11.9	193.0
34	5/27/78	16	28	79.4	15.9	15.9	197.0
34	5/27/78	16	33	47.6	19.9	19.9	201.0
34	5/27/78	16	37	83.4	25.4	25.4	206.5
34	5/27/78	16	40	79.4	29.4	29.4	210.5
34	5/27/78	16	46	13.2	30.7	30.7	211.8
34	5/27/78	17	13	1.8	31.5	31.5	212.6
34	5/31/78	21	51	0.0	0.0	0.0	212.6
34	5/31/78	21	54	58.5	2.9	2.9	215.5
34	5/31/78	21	57	16.0	3.7	3.7	216.3
34	5/31/78	22	3	5.3	4.3	4.3	216.9
34	5/31/78	22	5	39.9	5.6	5.6	218.2
34	5/31/78	22	7	103.8	9.0	9.0	221.6
34	5/31/78	22	10	90.5	13.6	13.6	226.2
34	5/31/78	22	14	20.0	14.9	14.9	227.5
34	5/31/78	22	46	1.0	15.4	15.4	228.0
34	5/31/78	22	54	4.0	16.0	16.0	228.6
34	6/ 1/78	5	23	0.0	16.2	0.3	228.8
34	6/ 1/78	5	32	1.8	16.5	0.5	229.1
34	6/ 1/78	5	34	8.0	16.8	0.8	229.4
34	6/ 1/78	5	35	47.9	17.6	1.6	230.2
34	6/ 1/78	5	43	8.0	18.6	2.7	231.2
34	6/ 1/78	5	44	31.9	19.2	3.2	231.8
34	6/ 1/78	5	46	16.0	19.7	3.7	232.3
34	6/ 1/78	5	47	31.9	20.2	4.3	232.8
34	6/ 1/78	5	53	5.3	20.8	4.8	233.4
34	6/ 1/78	6	15	0.7	21.0	5.1	233.6
34	6/ 1/78	6	17	16.0	21.6	5.6	234.1
34	6/ 1/78	8	45	0.2	22.1	6.1	234.7
34	6/ 1/78	9	10	0.6	22.4	6.4	234.9
34	6/ 6/78			NO DATA	0.0	0.0	234.9
34	6/ 6/78			NO DATA	1.0	1.0	236.0
34	6/ 7/78			NO DATA	0.0	0.0	236.0
34	6/ 7/78			NO DATA	1.0	1.0	237.0

TABLE B1-16. CONTINUED

GAGE	DATE	HOUR	MIN	PRECIP INTENSITY MM/HR	ACCUMULATED PRECIPITATION STORM MM	DAY MM	YEAR MM
34	6/14/78	13	53	6.7	6.0	6.0	243.0
34	6/14/78	14	0	5.4	6.7	6.7	243.6
34	6/14/78	14	2	19.1	7.3	7.3	244.3
34	6/14/78	14	6	4.8	7.6	7.6	244.6
34	6/15/78	1	9	0.0	0.0	0.0	244.6
34	6/15/78	1	13	63.1	4.2	4.2	248.8
34	6/15/78	1	17	16.8	5.3	5.3	249.9
34	6/15/78	1	27	5.1	6.2	6.2	250.8
34	6/15/78	1	29	16.8	6.7	6.7	251.3
34	6/15/78	1	34	6.7	7.3	7.3	251.9
34	6/15/78	1	40	14.0	8.7	8.7	253.3
34	6/15/78	1	45	16.8	10.1	10.1	254.7
34	6/15/78	1	47	50.5	11.8	11.8	256.4
34	6/15/78	1	55	12.6	13.5	13.5	258.1
34	6/15/78	2	2	16.8	15.4	15.4	260.0
34	6/15/78	2	8	2.8	15.7	15.7	260.3
34	6/15/78	2	28	1.7	16.3	16.3	260.9
34	6/15/78	2	34	11.2	17.4	17.4	262.0
34	6/15/78	2	40	5.6	18.0	18.0	262.6
34	6/15/78	2	50	1.7	18.2	18.2	262.8
34	6/15/78	3	10	2.5	19.1	19.1	263.7
34	6/15/78	3	30	1.7	19.6	19.6	264.2
34	6/15/78	3	48	3.7	20.8	20.8	265.4
34	6/15/78	4	2	2.4	21.3	21.3	265.9
34	6/15/78	4	19	2.0	21.9	21.9	266.5
34	6/15/78	4	25	5.6	22.4	22.4	267.0
34	6/15/78	4	38	1.3	22.7	22.7	267.3
34	6/15/78	4	44	2.8	23.0	23.0	267.6
34	6/15/78	5	58	0.5	23.6	23.6	268.2
34	6/15/78	6	10	2.8	24.1	24.1	268.7
34	6/17/78			NO DATA	0.0	0.0	268.7
34	6/17/78			NO DATA	2.5	2.5	271.3
34	6/20/78	0	32	0.0	0.0	0.0	271.3
34	6/20/78	0	38	46.1	4.6	4.6	275.9
34	6/20/78	0	41	28.8	6.1	6.1	277.3
34	6/20/78	0	43	43.2	7.5	7.5	278.8
34	6/20/78	0	48	10.4	8.4	8.4	279.6
34	6/20/78	0	50	17.3	8.9	8.9	280.2
34	6/20/78	0	54	13.0	9.8	9.8	281.1
34	6/20/78	0	57	23.1	11.0	11.0	282.2
34	6/20/78	1	2	6.9	11.5	11.5	282.8
34	6/20/78	1	5	34.6	13.3	13.3	284.5
34	6/20/78	1	10	13.8	14.4	14.4	285.7
34	6/20/78	1	15	17.3	15.9	15.9	287.1
34	6/20/78	1	24	1.9	16.1	16.1	287.4
34	6/20/78	1	27	28.8	17.6	17.6	288.9
34	6/20/78	1	46	9.1	20.5	20.5	291.7
34	6/20/78	1	52	25.9	23.1	23.1	294.3
34	6/20/78	2	20	9.9	27.7	27.7	298.9
34	6/20/78	2	30	5.2	28.5	28.5	299.8
34	6/20/78	2	40	3.5	29.1	29.1	300.4
34	6/20/78	3	0	2.6	30.0	30.0	301.2
34	6/20/78	3	30	1.2	30.6	30.6	301.8
34	6/20/78	4	3	0.5	30.9	30.9	302.1
34	6/20/78	4	16	4.0	31.7	31.7	303.0
34	6/20/78	4	20	4.3	32.0	32.0	303.3
34	6/23/78			NO DATA	0.0	0.0	303.3
34	6/23/78			NO DATA	0.8	0.8	304.0
34	6/26/78			NO DATA	0.0	0.0	304.0
34	6/26/78			NO DATA	0.5	0.5	304.5
34	6/28/78	16	29	0.0	0.0	0.0	304.5
34	6/28/78	16	33	69.1	4.6	4.6	309.1
34	6/28/78	16	35	146.4	9.5	9.5	314.0
34	6/28/78	16	39	97.6	16.0	16.0	320.5
34	6/28/78	16	45	70.5	23.0	23.0	327.6
34	6/28/78	16	50	13.0	24.1	24.1	328.7
34	7/ 2/78			NO DATA	0.0	0.0	328.7
34	7/ 2/78			NO DATA	0.5	0.5	329.2
34	7/ 6/78	1	30	0.0	0.0	0.0	329.2
34	7/ 6/78	1	40	6.8	1.1	1.1	330.3
34	7/ 6/78	1	48	29.6	5.1	5.1	334.3
34	7/ 6/78	1	54	2.8	5.4	5.4	334.5
34	7/ 6/78	2	5	3.1	5.9	5.9	335.1
34	7/ 6/78	2	40	0.5	6.2	6.2	335.4
34	7/ 6/78	2	53	1.3	6.5	6.5	335.7
34	7/ 6/78	3	30	0.9	7.1	7.1	336.2
34	7/ 6/78	4	0	1.1	7.6	7.6	336.8
34	7/ 6/78	22	30	0.0	0.0	7.6	336.8
34	7/ 6/78	22	45	1.1	0.3	7.9	337.1
34	7/ 6/78	23	10	1.4	0.9	8.5	337.6
34	7/ 6/78	23	15	3.4	1.1	8.8	337.9
34	7/ 6/78	23	25	3.4	1.7	9.3	338.8
34	7/ 6/78	23	40	3.4	2.6	10.2	339.4
34	7/ 6/78	23	50	1.7	2.9	10.5	339.6
34	7/ 7/78	1	50	0.1	3.1	0.3	339.9
34	7/ 7/78	2	30	4.3	6.0	3.1	342.8
34	7/ 7/78	2	40	1.7	6.3	3.4	343.1
34	7/ 7/78	3	0	1.7	6.9	4.0	343.6
34	7/ 8/78	23	40	0.0	0.0	0.0	343.6
34	7/ 8/78	23	43	32.8	1.6	1.6	345.3
34	7/ 8/78	23	56	3.8	2.5	2.5	346.1
34	7/ 8/78	23	58	24.6	3.3	3.3	346.9
34	7/ 9/78	0	4	5.5	3.8	0.5	347.5
34	7/ 9/78	1	2	1.1	4.9	1.6	348.6

TABLE B1-16. CONTINUED

GAGE	DATE	HOUR	MIN	PRECIP INTENSITY MM/HR	ACCUMULATED STORM MM	PRECIPITATION DAY MM	PRECIPITATION YEAR MM
34	7/ 9/78	1	45	1.5	6.0	2.7	349.7
34	7/ 9/78	2	5	3.3	7.1	3.8	350.8
34	7/12/78			NO DATA	0.0	0.0	350.8
34	7/12/78			NO DATA	3.8	3.8	354.6
34	7/17/78			NO DATA	0.0	0.0	354.6
34	7/17/78			NO DATA	3.3	3.3	357.9
34	7/18/78	4	50	0.0	0.0	0.0	357.9
34	7/18/78	5	6	3.0	0.8	0.8	358.7
34	7/18/78	5	26	1.6	1.3	1.3	359.2
34	7/18/78	5	40	5.8	2.7	2.7	360.6
34	7/18/78	6	3	1.4	3.2	3.2	361.1
34	7/18/78	6	13	3.2	3.8	3.8	361.6
34	7/18/78	6	28	5.4	5.1	5.1	363.0
34	7/18/78	6	31	37.6	7.0	7.0	364.9
34	7/18/78	7	10	2.1	8.3	8.3	366.2
34	7/19/78	8	40	0.7	9.4	9.4	367.3
34	7/18/78	20	39	0.0	0.0	9.4	367.3
34	7/18/78	20	42	5.4	0.3	9.7	367.5
34	7/18/78	20	51	46.6	7.3	16.7	374.5
34	7/18/78	20	53	24.2	8.1	17.5	375.3
34	7/18/78	20	54	112.9	9.9	19.3	377.2
34	7/18/78	20	59	12.9	11.0	20.4	378.3
34	7/18/78	21	2	5.4	11.3	20.7	378.6
34	7/18/78	21	5	16.1	12.1	21.5	379.4
34	7/18/78	21	18	6.2	13.4	22.8	380.7
34	7/18/78	21	30	2.7	14.0	23.4	381.2
34	7/18/78	21	46	3.0	14.8	24.2	382.1
34	7/18/78	22	0	6.9	16.4	25.8	383.7
34	7/18/78	22	6	2.7	16.7	26.1	383.9
34	7/18/78	22	17	4.4	17.5	26.9	384.7
34	7/18/78	22	35	3.6	18.5	27.9	385.8
34	7/18/78	22	55	0.8	18.8	28.2	386.1
34	7/19/78	1	31	0.1	19.1	0.3	386.3
34	7/19/78	1	37	13.4	20.4	1.6	387.7
34	7/19/78	1	41	4.0	20.7	1.9	388.0
34	7/19/78	1	43	8.1	21.0	2.2	388.2
34	7/19/78	1	51	0.0	21.0	2.2	388.2
34	7/19/78	1	55	12.1	21.8	3.0	389.0
34	7/19/78	2	0	41.9	25.3	6.5	392.5
34	7/19/78	2	6	10.8	26.3	7.5	393.6
34	7/19/78	3	30	0.2	26.6	7.8	393.9
34	7/19/78	3	32	24.2	27.4	8.6	394.7
34	7/19/78	3	40	2.0	27.7	8.9	395.0
34	7/20/78			NO DATA	0.0	0.0	395.0
34	7/20/78			NO DATA	1.3	1.3	396.2
34	7/21/78			NO DATA	0.0	0.0	396.2
34	7/21/78			NO DATA	2.3	2.3	398.5
34	7/22/78			NO DATA	0.0	0.0	398.5
34	7/22/78			NO DATA	3.0	3.0	401.6
34	7/26/78			NO DATA	0.0	0.0	401.6
34	7/26/78			NO DATA	4.1	4.1	405.6
34	8/17/78			NO DATA	0.0	0.0	405.6
34	8/17/78			NO DATA	3.0	3.0	408.7
34	8/21/78	12	2	0.0	0.0	0.0	408.7
34	8/21/78	12	42	4.5	3.0	3.0	411.7
34	8/21/78	12	50	3.8	3.5	3.5	412.2
34	8/21/78	13	12	2.1	4.3	4.3	412.9
34	8/21/78	13	27	2.0	4.8	4.8	413.4
34	8/21/78	13	33	5.0	5.3	5.3	413.9
34	8/21/78	13	42	1.7	5.5	5.5	414.2
34	8/21/78	13	44	15.1	6.0	6.0	414.7
34	8/21/78	13	53	3.3	6.5	6.5	415.2
34	8/21/78	14	0	2.2	6.8	6.8	415.4
34	8/21/78	14	28	0.5	7.0	7.0	415.7
34	8/21/78	14	30	15.1	7.5	7.5	416.2
34	8/21/78	14	41	1.4	7.8	7.8	416.4
34	8/21/78	14	44	10.0	8.3	8.3	416.9
34	8/21/78	14	46	15.1	8.8	8.8	417.4
34	8/21/78	14	51	21.1	10.5	10.5	419.2
34	8/21/78	14	57	10.0	11.5	11.5	420.2
34	8/21/78	15	0	5.0	11.8	11.8	420.5
34	8/21/78	15	4	7.5	12.3	12.3	421.0
34	8/21/78	15	10	5.0	12.8	12.8	421.5
34	8/21/78	15	20	7.5	14.0	14.0	422.7
34	8/21/78	15	25	18.1	15.6	15.6	424.2
34	8/21/78	15	37	2.5	16.1	16.1	424.7
34	8/21/78	15	40	40.1	18.1	18.1	426.7
34	8/21/78	15	44	26.3	19.8	19.8	428.5
34	8/21/78	16	9	0.0	19.8	19.8	428.5
34	8/21/78	16	10	15.1	20.1	20.1	428.7
34	8/21/78	16	20	1.5	20.3	20.3	429.0
34	8/26/78	5	54	0.0	0.0	0.0	429.0
34	8/26/78	5	56	82.0	2.7	2.7	431.7
34	8/26/78	5	57	81.9	4.1	4.1	433.1
34	8/26/78	6	1	41.0	6.8	6.8	435.8
34	8/26/78	6	5	69.7	11.5	11.5	440.5
34	8/26/78	6	17	8.2	13.1	13.1	442.1
34	8/26/78	6	33	2.0	13.7	13.7	442.6
34	8/26/78	14	37	0.0	13.7	13.7	442.6
34	8/26/78	14	47	8.2	15.0	15.0	444.0
34	8/26/78	14	59	0.0	15.0	15.0	444.0
34	8/26/78	15	8	36.4	20.5	20.5	449.5
34	8/26/78	15	11	10.9	21.0	21.0	450.0

TABLE B1-16. CONTINUED

GAGE	DATE	HOUR	MIN	PRECIP INTENSITY MM/HR	ACCUMULATED PRECIPITATION STORM MM	DAY MM	YEAR MM
34	8/26/78	20	17	0.1	21.3	21.3	450.3
34	8/26/78	20	27	3.3	21.9	21.9	450.8
34	8/26/78	20	29	16.4	22.4	22.4	451.4
34	8/26/78	20	40	71.5	35.5	35.5	464.5
34	8/26/78	20	46	139.3	49.4	49.4	478.4
34	8/26/78	20	47	262.3	53.8	53.8	482.8
34	8/26/78	20	53	68.3	60.6	60.6	489.6
34	8/26/78	21	11	46.3	75.1	75.1	504.1
34	8/26/78	21	15	41.0	77.9	77.9	506.8
34	8/26/78	21	21	19.1	79.8	79.8	508.7
34	8/26/78	21	24	10.9	80.3	80.3	509.3
34	8/26/78	21	32	12.3	82.0	82.0	510.9
34	8/26/78	21	52	4.1	83.3	83.3	512.3
34	8/26/78	21	57	3.3	83.6	83.6	512.6
34	8/26/78	22	11	9.4	85.8	85.8	514.8
34	8/26/78	22	20	1.8	86.0	86.0	515.0
34	8/26/78	22	22	24.6	86.9	86.9	515.8
34	8/26/78	22	26	4.1	87.1	87.1	516.1
34	8/26/78	22	34	10.2	88.5	88.5	517.5
34	8/26/78	22	41	2.3	88.8	88.8	517.8
34	8/26/78	22	51	4.9	89.6	89.6	518.6
34	8/26/78	23	1	4.9	90.4	90.4	519.4
34	8/26/78	23	32	6.9	94.0	94.0	522.9
34	8/27/78	0	11	4.2	96.7	2.7	525.7
34	8/27/78	0	31	2.5	97.5	3.6	526.5
34	8/27/78	0	32	32.8	98.1	4.1	527.0
34	8/27/78	6	57	0.0	98.3	4.4	527.3
34	8/27/78	7	21	0.7	98.6	4.6	527.6
34	8/27/78	11	16	0.2	99.4	5.5	528.4
34	8/27/78	11	25	9.1	100.8	6.8	529.8
34	8/27/78	11	41	2.0	101.3	7.4	530.3
34	8/27/78			NO DATA	0.0	7.4	530.3
34	8/27/78			NO DATA	1.8	9.2	532.1
34	9/12/78	22	50	0.0	0.0	0.0	532.1
34	9/12/78	23	11	7.7	2.7	2.7	534.8
34	9/12/78	23	15	20.2	4.0	4.0	536.1
34	9/12/78	23	18	53.9	6.7	6.7	538.8
34	9/12/78	23	23	16.2	8.1	8.1	540.2
34	9/12/78	23	26	53.9	10.8	10.8	542.9
34	9/12/78	23	29	16.2	11.6	11.6	543.7
34	9/12/78	23	39	12.9	13.7	13.7	545.8
34	9/12/78	23	46	2.3	14.0	14.0	546.1
34	9/12/78	23	50	16.2	15.1	15.1	547.2
34	9/12/78	23	55	6.5	15.6	15.6	547.7
34	9/13/78	0	22	0.6	15.9	0.3	548.0
34	9/13/78	0	27	19.4	17.5	1.9	549.6
34	9/13/78	0	36	3.6	18.1	2.4	550.2
34	9/13/78	0	45	9.0	19.4	3.8	551.5
34	9/13/78	0	53	2.0	19.7	4.0	551.8
34	9/13/78	0	56	5.4	19.9	4.3	552.0
34	9/13/78	1	5	1.8	20.2	4.6	552.3
34	9/13/78	1	15	1.6	20.5	4.9	552.6
34	9/13/78	2	0	0.4	20.8	5.1	552.9
34	9/13/78	2	5	3.2	21.0	5.4	553.1
34	9/13/78	2	39	0.5	21.3	5.7	553.4
34	9/13/78	2	45	8.1	22.1	6.5	554.2
34	9/13/78	2	57	2.7	22.6	7.0	554.7
34	9/13/78	3	4	6.9	23.5	7.8	555.6
34	9/13/78	3	11	4.6	24.0	8.4	556.1
34	9/13/78	3	13	32.3	25.1	9.4	557.2
34	9/13/78	3	22	9.0	26.4	10.8	558.5
34	9/13/78	3	30	8.1	27.5	11.9	559.6
34	9/13/78	3	35	3.2	27.8	12.1	559.9
34	9/13/78	3	45	4.9	28.6	12.9	560.7
34	9/13/78	4	13	1.2	29.1	13.5	561.2
34	9/13/78	4	46	1.0	29.7	14.0	561.7
34	9/13/78	4	48	8.1	29.9	14.3	562.0
34	9/13/78	5	5	1.9	30.5	14.8	562.6
34	9/13/78	5	15	8.1	31.8	16.2	563.9
34	9/13/78	5	18	32.3	33.4	17.8	565.5
34	9/13/78	5	22	8.1	34.0	18.3	566.1
34	9/13/78	5	41	3.4	35.0	19.4	567.1
34	9/13/78	6	0	6.0	36.9	21.3	569.0
34	9/13/78	6	15	3.2	37.7	22.1	569.8
34	9/13/78	6	28	5.0	38.8	23.2	570.9
34	9/13/78	6	40	4.0	39.6	24.0	571.7
34	9/13/78	21	18	0.0	0.0	24.0	571.7
34	9/13/78	21	19	49.0	0.8	24.8	572.5
34	9/13/78	21	23	4.1	1.1	25.1	572.8
34	9/13/78	21	28	36.0	4.1	28.1	575.8
34	9/13/78	21	35	4.7	4.6	28.6	576.4
34	9/13/78	21	40	13.1	5.7	29.7	577.4
34	9/13/78	21	45	22.9	7.6	31.6	579.4
34	9/13/78	22	5	3.3	8.7	32.7	580.4
34	9/13/78	22	10	6.5	9.3	33.3	581.0
34	9/13/78	22	16	2.7	9.5	33.5	581.3
34	9/13/78	22	18	24.5	10.4	34.3	582.1
34	9/13/78	22	24	8.2	11.2	35.2	582.9
34	9/13/78	22	28	40.9	13.9	37.9	585.6
34	9/13/78	22	32	28.6	15.8	39.8	587.5
34	9/13/78	22	35	49.0	18.3	42.2	590.0
34	9/13/78	22	38	27.2	19.6	43.6	591.3
34	9/13/78	22	42	4.1	19.9	43.9	591.6
34	9/13/78	22	50	12.3	21.5	45.5	593.2
34	9/13/78	23	0	52.3	30.2	54.2	602.0
34	9/13/78	23	10	13.1	32.4	56.4	604.1
34	9/13/78	23	15	6.5	33.0	57.0	604.7
34	9/13/78	23	24	3.6	33.5	57.5	605.2
34	9/13/78	23	40	3.1	34.3	58.3	606.1
34	9/14/78	0	15	6.5	38.2	3.8	609.9
34	9/14/78	0	34	3.4	39.2	4.9	611.0

TABLE B1-16. CONTINUED

GAGE	DATE	HOUR	MIN	PRECIP INTENSITY MM/HR	ACCUMULATED PRECIPITATION STORM MM	DAY MM	YEAR MM
34	9/14/78	0	54	5.7	41.1	6.8	612.9
34	9/16/78			NO DATA	0.0	0.0	612.9
34	9/16/78			NO DATA	1.3	1.3	614.1
34	9/17/78	18	40	0.0	0.0	0.0	614.1
34	9/17/78	19	5	2.0	0.8	0.8	615.0
34	9/17/78	19	49	1.2	1.7	1.7	615.8
34	9/17/78	20	27	4.5	4.5	4.5	618.7
34	9/17/78	20	36	7.5	5.7	5.7	619.8
34	9/17/78	20	58	5.4	7.6	7.6	621.8
34	9/17/78	21	15	3.0	8.5	8.5	622.6
34	9/17/78	21	33	1.9	9.0	9.0	623.2
34	9/17/78	21	57	0.7	9.3	9.3	623.5
34	9/17/78	22	14	2.0	9.9	9.9	624.0
34	9/17/78	22	34	4.2	11.3	11.3	625.4
34	9/17/78	22	44	3.4	11.9	11.9	626.0
34	9/17/78	23	19	1.0	12.4	12.4	626.6
34	9/17/78	23	25	2.8	12.7	12.7	626.9
34	9/18/78	0	21	0.6	13.3	0.6	627.4
34	9/18/78	0	52	3.3	15.0	2.3	629.1
34	9/19/78	19	5	0.0	0.0	0.0	629.1
34	9/19/78	19	7	106.0	3.5	3.5	632.7
34	9/19/78	19	13	16.3	5.2	5.2	634.3
34	9/19/78	19	14	81.6	6.5	6.5	635.6
34	9/19/78	19	16	16.3	7.1	7.1	636.2
34	9/19/78	19	20	32.6	9.2	9.2	638.4
34	9/19/78	19	22	57.1	11.1	11.1	640.3
34	9/19/78	19	26	53.0	14.7	14.7	643.8
34	9/19/78	19	32	13.6	16.0	16.0	645.2
34	9/19/78	21	7	0.3	16.6	16.6	645.7
34	9/19/78	21	11	53.0	20.1	20.1	649.2
34	9/19/78	21	19	10.2	21.5	21.5	650.6
34	9/19/78	22	7	1.4	22.6	22.6	651.7
34	9/19/78	22	18	3.0	23.1	23.1	652.2
34	9/19/78	23	12	0.3	23.4	23.4	652.5
34	9/19/78	23	22	3.3	23.9	23.9	653.0
34	9/20/78	0	5	0.8	24.5	0.5	653.6
34	9/20/78	0	35	0.5	24.7	0.8	653.9
34	9/20/78	0	45	4.9	25.5	1.6	654.7
34	9/20/78	0	48	10.9	26.1	2.2	655.2
34	9/20/78	0	52	32.6	28.3	4.3	657.4
34	9/20/78	0	56	4.1	28.5	4.6	657.7
34	9/20/78	1	5	3.6	29.1	5.2	658.2
34	9/20/78	1	28	5.7	31.3	7.3	660.4
34	9/20/78	5	5	0.2	31.8	7.9	660.9
34	9/20/78	5	22	2.9	32.6	8.7	661.7
34	9/20/78	5	39	5.8	34.2	10.3	663.4
34	9/20/78	5	55	2.0	34.8	10.9	663.9
34	9/20/78	6	35	3.3	37.0	13.0	666.1
34	9/20/78	6	55	1.6	37.5	13.6	666.6
34	9/20/78	7	23	4.1	39.4	15.5	668.5
34	9/20/78	8	8	0.4	39.7	15.8	668.8
34	9/20/78	8	20	2.7	40.2	16.3	669.3
34	9/20/78	8	35	8.7	42.4	18.5	671.5
34	9/20/78	8	39	4.1	42.7	18.8	671.8
34	9/20/78	8	49	8.2	44.0	20.1	673.1
34	9/20/78	8	59	3.3	44.6	20.7	673.7
34	9/20/78	9	3	12.2	45.4	21.5	674.5
34	9/20/78	9	15	4.1	46.2	22.3	675.3
34	9/20/78	9	33	0.9	46.5	22.6	675.6
34	9/20/78	9	37	20.4	47.8	23.9	677.0
34	9/20/78	9	47	4.9	48.6	24.7	677.8
34	9/20/78	9	51	32.6	50.8	26.9	679.9
34	9/20/78	9	57	5.4	51.4	27.4	680.5
34	9/20/78	10	3	10.9	52.5	28.5	681.6
34	9/20/78	10	15	2.7	53.0	29.1	682.1
34	9/20/78	10	54	0.4	53.3	29.4	682.4
34	9/20/78	12	49	0.1	53.5	29.6	682.7
34	9/20/78	13	5	1.0	53.8	29.9	682.9
34	9/20/78	16	15	0.2	54.4	30.4	683.5
34	9/29/78			NO DATA	0.0	0.0	683.5
34	9/29/78			NO DATA	2.5	2.5	686.0
34	10/ 2/78	12	14	0.0	0.0	0.0	686.0
34	10/ 2/78	12	17	56.4	2.8	2.8	688.8
34	10/ 2/78	12	21	28.2	4.7	4.7	690.7
34	10/ 2/78	12	30	2.1	5.0	5.0	691.0
34	10/ 2/78	12	36	3.1	5.3	5.3	691.3
34	10/ 2/78	12	40	4.7	5.6	5.6	691.6
34	10/ 2/78	12	48	2.3	5.9	5.9	692.0
34	10/ 2/78	12	54	3.1	6.3	6.3	692.3
34	10/ 2/78	13	6	1.6	6.6	6.6	692.6
34	10/ 2/78	13	11	3.8	6.9	6.9	692.9
34	10/ 2/78	13	24	1.4	7.2	7.2	693.2
34	10/ 2/78	13	28	4.7	7.5	7.5	693.5
34	10/ 2/78	13	42	1.3	7.8	7.8	693.8
34	10/ 2/78	13	58	2.3	8.5	8.5	694.5
34	10/ 2/78	14	9	1.7	8.8	8.8	694.8
34	10/ 2/78	14	30	3.6	10.0	10.0	696.0
34	10/ 2/78	14	39	2.1	10.3	10.3	696.3
34	10/ 2/78	14	54	5.0	11.6	11.6	697.6
34	10/ 2/78	15	13	2.0	12.2	12.2	698.2
34	10/ 2/78	15	25	6.3	13.5	13.5	699.5
34	10/ 3/78			NO DATA	0.0	0.0	699.5
34	10/ 3/78			NO DATA	1.3	1.3	700.7
34	10/ 9/78	10	48	0.0	0.0	0.0	700.7
34	10/ 9/78	10	58	10.6	1.8	1.8	702.5
34	10/ 9/78	11	8	6.3	2.8	2.8	703.6
34	10/ 9/78	11	20	3.5	3.5	3.5	704.3

TABLE B1-16. CONCLUDED

GAGE	DATE	HOUR	MIN	PRECIP INTENSITY MM/HR	ACCUMULATED PRECIPITATION STORM MM	DAY MM	YEAR MM
34	10/ 9/78	11	30	2.1	3.9	3.9	704.6
34	10/ 9/78	12	55	0.0	3.9	3.9	704.6
34	10/ 9/78	17	10	0.2	4.6	4.6	705.3
34	10/ 9/78	17	12	31.7	5.6	5.6	706.4
34	10/ 9/78	17	30	5.9	7.4	7.4	708.1
34	10/ 9/78	17	46	2.6	8.1	8.1	708.9
34	10/ 9/78	17	50	10.6	8.8	8.8	709.6
34	10/ 9/78	18	12	1.9	9.5	9.5	710.3
34	10/ 9/78	18	17	4.2	9.9	9.9	710.6
34	10/ 9/78	18	23	3.5	10.2	10.2	711.0
34	10/ 9/78	19	0	0.6	10.6	10.6	711.3
34	10/ 9/78	19	5	16.9	12.0	12.0	712.7
34	10/ 9/78	20	28	0.5	12.7	12.7	713.4
34	10/22/78			NO DATA	0.0	0.0	713.4
34	10/22/78			NO DATA	4.1	4.1	717.5
34	11/ 5/78			NO DATA	0.0	0.0	717.5
34	11/ 5/78			NO DATA	1.0	1.0	718.5
34	11/12/78	3	0	0.0	0.0	0.0	718.5
34	11/12/78	3	10	7.8	1.3	1.3	719.8
34	11/12/78	3	44	3.2	3.1	3.1	721.6
34	11/12/78	4	30	1.0	3.9	3.9	722.4
34	11/12/78	5	0	0.5	4.1	4.1	722.7
34	11/12/78	5	10	1.6	4.4	4.4	722.9
34	11/12/78	5	30	0.8	4.7	4.7	723.2
34	11/12/78	5	35	3.1	4.9	4.9	723.4
34	11/12/78	6	10	0.4	5.2	5.2	723.7
34	11/12/78	6	34	1.9	6.0	6.0	724.5
34	11/12/78	6	58	2.6	7.0	7.0	725.5
34	11/12/78	7	10	6.5	8.3	8.3	726.8
34	11/12/78	7	24	6.7	9.8	9.8	728.4
34	11/12/78	8	0	0.9	10.4	10.4	728.9
34	11/12/78	8	3	25.9	11.6	11.6	730.2
34	11/12/78	8	7	3.9	11.9	11.9	730.4
34	11/12/78	8	16	3.5	12.4	12.4	730.9
34	11/12/78	8	21	6.2	12.9	12.9	731.5
34	11/12/78	8	27	5.2	13.5	13.5	732.0
34	11/12/78	8	37	4.7	14.2	14.2	732.8
34	11/12/78	8	50	9.6	16.3	16.3	734.8
34	11/12/78	8	55	9.3	17.1	17.1	735.6
34	11/12/78	9	34	1.2	17.9	17.9	736.4
34	11/12/78	10	45	0.7	18.6	18.6	737.2
34	11/12/78	10	57	2.6	19.2	19.2	737.7
34	11/12/78	11	8	5.6	20.2	20.2	738.7
34	11/12/78	11	16	7.8	21.5	21.5	740.0
34	11/12/78	11	32	2.2	22.0	22.0	740.5
34	11/12/78	11	42	10.9	23.8	23.8	742.3
34	11/12/78	11	47	3.1	24.1	24.1	742.6
34	11/12/78	11	54	15.5	25.9	25.9	744.4
34	11/12/78	12	0	5.2	26.4	26.4	744.9
34	11/12/78	12	11	1.4	26.7	26.7	745.2
34	11/12/78	12	14	10.4	27.2	27.2	745.7
34	11/12/78	12	30	1.9	27.7	27.7	746.2
34	11/12/78	12	36	5.2	28.2	28.2	746.7
34	11/12/78	13	7	1.0	28.7	28.7	747.2
34	11/12/78	13	8	31.1	29.3	29.3	747.8
34	11/12/78	13	20	2.6	29.8	29.8	748.3
34	11/12/78	13	25	3.1	30.0	30.0	748.5
34	11/12/78	13	32	2.2	30.3	30.3	748.8
34	11/12/78	13	50	1.7	30.8	30.8	749.3
34	11/12/78	14	0	4.7	31.6	31.6	750.1
34	11/12/78	14	8	3.9	32.1	32.1	750.6
34	11/12/78	14	13	3.1	32.4	32.4	750.9
34	11/12/78	14	15	15.5	32.9	32.9	751.4
34	11/12/78	14	20	9.3	33.7	33.7	752.2
34	11/12/78	14	32	11.6	36.0	36.0	754.5
34	11/12/78	14	37	12.4	37.0	37.0	755.5
34	11/12/78	15	1	1.3	37.5	37.5	756.0
34	11/12/78	15	12	1.4	37.8	37.8	756.3
34	11/12/78	15	14	15.5	38.3	38.3	756.8
34	11/12/78	15	30	1.9	38.8	38.8	757.3
34	11/12/78	15	34	3.9	39.1	39.1	757.6
34	11/12/78	15	50	1.0	39.3	39.3	757.9
34	11/12/78	17	31	0.2	39.6	39.6	758.1
34	11/12/78	19	10	0.6	40.6	40.6	759.2

TABLE B1-17. FOUR MILE CREEK WATERSHED PRECIPITATION DATA FOR 1978 GAGE 35

GAGE	DATE	HOUR	MIN	PRECIP INTENSITY MM/HR	ACCUMULATED PRECIPITATION STORM MM	DAY MM	YEAR MM
35	4/ 3/78			NO DATA	0.0	0.0	0.0
35	4/ 3/78			NO DATA	1.0	1.0	1.0
35	4/ 5/78	11	15	0.0	0.0	0.0	1.0
35	4/ 5/78	12	10	0.3	0.3	0.3	1.3
35	4/ 5/78	15	18	0.2	0.8	0.8	1.9
35	4/ 5/78	15	40	1.5	1.4	1.4	2.4
35	4/ 5/78	16	10	0.6	1.7	1.7	2.7
35	4/ 5/78	16	48	2.2	3.1	3.1	4.1
35	4/ 5/78	16	57	11.1	4.7	4.7	5.8
35	4/ 5/78	17	2	6.7	5.3	5.3	6.3
35	4/ 5/78	17	10	2.1	5.6	5.6	6.6
35	4/ 5/78	17	25	5.6	7.0	7.0	8.0
35	4/ 5/78	17	34	3.7	7.5	7.5	8.5
35	4/ 5/78	17	35	50.2	8.4	8.4	9.4
35	4/ 5/78	17	40	0.0	8.4	8.4	9.4
35	4/ 5/78	17	42	58.5	10.3	10.3	11.3
35	4/ 5/78	17	49	7.2	11.1	11.1	12.2
35	4/ 5/78	17	52	39.0	13.1	13.1	14.1
35	4/ 5/78	18	24	13.1	20.1	20.1	21.1
35	4/ 5/78	18	25	100.4	21.7	21.7	22.8
35	4/ 5/78	18	28	22.3	22.9	22.9	23.9
35	4/ 5/78	18	33	6.7	23.4	23.4	24.4
35	4/ 5/78	18	37	20.9	24.8	24.8	25.8
35	4/ 5/78	18	40	5.6	25.1	25.1	26.1
35	4/ 5/78	18	44	4.2	25.4	25.4	26.4
35	4/ 5/78	18	46	16.7	25.9	25.9	26.9
35	4/ 5/78	18	55	1.9	26.2	26.2	27.2
35	4/ 5/78	22	45	0.0	26.2	26.2	27.2
35	4/ 5/78	22	50	3.3	26.5	26.5	27.5
35	4/ 5/78	23	37	0.4	26.8	26.8	27.8
35	4/ 5/78	23	43	5.6	27.3	27.3	28.3
35	4/ 6/78	0	5	1.5	27.9	0.6	28.9
35	4/ 6/78	0	25	0.0	27.9	0.6	28.9
35	4/ 6/78	0	26	33.4	28.4	1.1	29.4
35	4/ 6/78	0	38	1.4	28.7	1.4	29.7
35	4/ 6/78	0	43	3.3	29.0	1.7	30.0
35	4/ 6/78	0	46	33.4	30.7	3.3	31.7
35	4/ 6/78	1	19	1.0	31.2	3.9	32.2
35	4/ 6/78	1	22	5.6	31.5	4.2	32.5
35	4/ 8/78			NO DATA	0.0	0.0	32.5
35	4/ 8/78			NO DATA	1.8	1.8	34.3
35	4/ 8/78			NO DATA	0.0	1.8	34.3
35	4/ 8/78			NO DATA	2.0	3.8	36.3
35	4/ 9/78	17	51	0.0	0.0	0.0	36.3
35	4/ 9/78	17	54	17.3	0.9	0.9	37.2
35	4/ 9/78	18	17	0.8	1.2	1.2	37.5
35	4/ 9/78	18	24	7.4	2.0	2.0	38.3
35	4/ 9/78	18	26	69.0	4.3	4.3	40.6
35	4/ 9/78	18	29	46.0	6.6	6.6	42.9
35	4/ 9/78	18	31	94.9	9.8	9.8	46.1
35	4/ 9/78	18	36	13.8	10.9	10.9	47.3
35	4/ 9/78	18	38	43.1	12.4	12.4	48.7
35	4/ 9/78	18	45	7.4	13.2	13.2	49.6
35	4/ 9/78	18	53	28.0	17.0	17.0	53.3
35	4/ 9/78	19	9	4.3	18.1	18.1	54.4
35	4/ 9/78	19	15	5.8	18.7	18.7	55.0
35	4/ 9/78	23	50	0.2	19.6	19.6	55.9
35	4/17/78	10	30	0.0	0.0	0.0	55.9
35	4/17/78	10	51	0.8	0.3	0.3	56.2
35	4/17/78	11	40	0.3	0.5	0.5	56.4
35	4/17/78	11	57	1.9	1.1	1.1	57.0
35	4/17/78	12	11	1.2	1.4	1.4	57.2
35	4/17/78	12	43	4.6	3.8	3.8	59.7
35	4/17/78	13	12	7.4	7.4	7.4	63.3
35	4/17/78	13	28	7.2	9.3	9.3	65.2
35	4/17/78	13	40	9.6	11.2	11.2	67.1
35	4/17/78	13	47	14.1	12.8	12.8	68.7
35	4/17/78	14	14	9.1	16.9	16.9	72.8
35	4/17/78	14	35	11.7	21.0	21.0	76.9
35	4/17/78	15	0	9.2	24.9	24.9	80.7
35	4/17/78	15	15	3.3	25.7	25.7	81.6
35	4/17/78	15	26	6.0	26.8	26.8	82.7
35	4/17/78	15	35	1.8	27.1	27.1	82.9
35	4/17/78	15	41	21.9	29.2	29.2	85.1
35	4/17/78	15	48	9.4	30.3	30.3	86.2
35	4/17/78	16	0	4.1	31.2	31.2	87.0
35	4/17/78	16	25	2.0	32.0	32.0	87.9
35	4/17/78	16	39	2.3	32.5	32.5	88.4
35	4/17/78	16	50	4.5	33.3	33.3	89.2
35	4/17/78	17	30	0.8	33.9	33.9	89.8
35	4/17/78	17	50	2.5	34.7	34.7	90.6
35	4/17/78	18	2	1.4	35.0	35.0	90.9
35	4/17/78	18	24	0.7	35.3	35.3	91.1
35	4/17/78	18	41	2.9	36.1	36.1	92.0
35	4/17/78	19	4	0.7	36.3	36.3	92.2
35	4/17/78	19	9	3.3	36.6	36.6	92.5
35	4/17/78	19	39	2.2	37.7	37.7	93.6
35	4/17/78	19	43	16.4	38.8	38.8	94.7
35	4/17/78	19	55	2.7	39.4	39.4	95.2
35	4/17/78	22	18	0.2	39.9	39.9	95.8
35	4/17/78	22	29	3.0	40.4	40.4	96.3
35	4/17/78	22	35	10.9	41.5	41.5	97.4
35	4/17/78	22	50	4.4	42.6	42.6	98.5
35	4/17/78	22	53	32.8	44.3	44.3	100.2
35	4/17/78	22	58	26.2	46.5	46.5	102.3
35	4/17/78	23	10	16.4	49.7	49.7	105.6
35	4/17/78	23	20	14.8	52.2	52.2	108.1
35	4/17/78	23	30	8.2	53.6	53.6	109.4
35	4/17/78	23	52	9.7	57.1	57.1	113.0

TABLE B1-17. CONTINUED

GAGE	DATE	HOUR	MIN	PRECIP INTENSITY MM/HR	ACCUMULATED STORM MM	PRECIPITATION DAY MM	PRECIPITATION YEAR MM
35	4/17/78	24	0	6.1	57.9	57.9	113.8
35	4/18/78	0	10	3.3	58.5	0.5	114.4
35	4/18/78	0	28	5.5	60.1	2.2	116.0
35	4/18/78	0	36	2.0	60.4	2.5	116.3
35	4/18/78	0	38	8.2	60.7	2.7	116.6
35	4/18/78	3	31	0.1	60.9	3.0	116.8
35	4/18/78	3	32	16.4	61.2	3.3	117.1
35	4/18/78	3	40	2.0	61.5	3.6	117.4
35	4/18/78	3	55	2.2	62.0	4.1	117.9
35	4/18/78	4	0	3.3	62.3	4.4	118.2
35	4/18/78	4	3	5.5	62.6	4.6	118.5
35	4/18/78	4	12	3.6	63.1	5.2	119.0
35	4/18/78	4	15	10.9	63.7	5.7	119.6
35	4/18/78	4	23	2.0	64.0	6.0	119.8
35	4/18/78	4	32	3.6	64.5	6.6	120.4
35	4/18/78	4	43	1.5	64.8	6.8	120.7
35	4/18/78	5	1	5.5	66.4	8.5	122.3
35	4/18/78	5	23	0.7	66.7	8.7	122.6
35	4/18/78	5	27	8.2	67.2	9.3	123.1
35	4/18/78	5	40	1.3	67.5	9.6	123.4
35	4/18/78	12	30	0.1	68.3	10.4	124.2
35	4/18/78			NO DATA	0.0	10.4	124.2
35	4/18/78			NO DATA	3.8	14.2	128.0
35	4/19/78			NO DATA	0.0	0.0	128.0
35	4/19/78			NO DATA	1.3	1.3	129.3
35	4/20/78			NO DATA	0.0	0.0	129.3
35	4/20/78			NO DATA	0.5	0.5	129.8
35	4/22/78	20	35	0.0	0.0	0.0	129.8
35	4/22/78	21	30	1.9	1.7	1.7	131.5
35	4/22/78	21	38	2.2	2.0	2.0	131.8
35	4/22/78	21	53	1.2	2.3	2.3	132.1
35	4/22/78	22	20	2.0	3.5	3.5	133.3
35	4/22/78	22	33	5.4	4.6	4.6	134.4
35	4/22/78	22	45	4.4	5.5	5.5	135.3
35	4/22/78	22	55	1.7	5.8	5.8	135.6
35	4/22/78	23	5	1.7	6.1	6.1	135.9
35	5/ 7/78	0	1	0.0	0.0	0.0	135.9
35	5/ 7/78	0	15	2.4	0.6	0.6	136.5
35	5/ 7/78	0	29	8.4	2.5	2.5	138.4
35	5/ 7/78	1	7	2.7	4.2	4.2	140.1
35	5/ 7/78	1	19	4.2	5.1	5.1	140.9
35	5/ 7/78	1	26	4.8	5.6	5.6	141.5
35	5/ 7/78	1	59	8.7	10.4	10.4	146.3
35	5/ 7/78	2	15	7.4	12.4	12.4	148.3
35	5/ 7/78	2	25	3.4	12.9	12.9	148.8
35	5/ 7/78	2	45	1.7	13.5	13.5	149.4
35	5/ 7/78	8	35	0.0	13.8	13.8	149.7
35	5/ 7/78	9	25	0.7	14.3	14.3	150.2
35	5/ 7/78	9	35	3.4	14.9	14.9	150.8
35	5/ 7/78	10	0	0.7	15.2	15.2	151.1
35	5/ 7/78	10	25	1.3	15.7	15.7	151.6
35	5/ 7/78	22	35	0.0	0.0	15.7	151.6
35	5/ 7/78	22	48	4.4	1.0	16.7	152.6
35	5/ 7/78	23	0	4.8	1.9	17.7	153.5
35	5/ 7/78	23	15	2.5	2.5	18.3	154.2
35	5/ 7/78	23	25	3.8	3.2	18.9	154.8
35	5/ 8/78	0	15	0.4	3.5	0.3	155.1
35	5/ 8/78	0	20	3.8	3.8	0.6	155.4
35	5/ 8/78	0	28	4.8	4.4	1.3	156.1
35	5/ 8/78	0	35	2.7	4.8	1.6	156.4
35	5/ 8/78	0	45	1.9	5.1	1.9	156.7
35	5/ 8/78	0	52	2.7	5.4	2.2	157.0
35	5/ 8/78	1	3	5.2	6.3	3.2	158.0
35	5/12/78	19	45	0.0	0.0	0.0	158.0
35	5/12/78	20	8	3.5	1.3	1.3	159.3
35	5/12/78	20	23	6.4	2.9	2.9	160.9
35	5/12/78	20	32	3.6	3.5	3.5	161.5
35	5/12/78	20	40	4.0	4.0	4.0	162.0
35	5/12/78	20	54	2.3	4.5	4.5	162.5
35	5/12/78	21	26	4.5	7.0	7.0	164.9
35	5/12/78	21	40	2.3	7.5	7.5	165.5
35	5/12/78	22	0	3.2	8.6	8.6	166.5
35	5/12/78	22	20	3.2	9.6	9.6	167.6
35	5/12/78	22	35	6.4	11.2	11.2	169.2
35	5/12/78	23	0	2.6	12.3	12.3	170.3
35	5/12/78	23	19	5.1	13.9	13.9	171.9
35	5/12/78	23	30	5.8	15.0	15.0	173.0
35	5/13/78	0	14	4.4	18.2	3.2	176.2
35	5/13/78	0	40	8.6	21.9	7.0	179.9
35	5/13/78	1	46	6.1	28.6	13.6	186.6
35	5/13/78	1	58	18.7	32.4	17.4	190.3
35	5/13/78	2	7	8.9	33.7	18.7	191.7
35	5/13/78	2	24	5.7	35.3	20.3	193.3
35	5/13/78	3	5	3.9	38.0	23.0	196.0
35	5/13/78	4	0	5.3	42.8	27.8	200.8
35	5/13/78	4	10	3.2	43.3	28.3	201.3
35	5/13/78	4	33	3.5	44.7	29.7	202.6
35	5/13/78	4	45	2.7	45.2	30.2	203.2
35	5/13/78	5	10	1.9	46.0	31.0	204.0
35	5/13/78	5	40	2.7	47.3	32.4	205.3
35	5/13/78	6	26	2.8	49.5	34.5	207.4
35	5/13/78	6	50	3.3	50.8	35.8	208.8
35	5/22/78			NO DATA	0.0	0.0	208.8
35	5/22/78			NO DATA	0.8	0.8	209.5
35	5/27/78			NO DATA	0.0	0.0	209.5

TABLE 81-17. CONTINUED

GAGE	DATE	HOUR	MIN	PRECIP INTENSITY MM/HR	ACCUMULATED STORM MM	PRECIPITATION DAY MM	PRECIPITATION YEAR MM
35	5/27/78			NO DATA	3.8	3.8	213.4
35	5/31/78	22	6	0.0	0.0	0.0	213.4
35	5/31/78	22	7	51.6	0.9	0.9	214.2
35	5/31/78	22	14	14.7	2.6	2.6	215.9
35	5/31/78	22	16	34.4	4.9	4.9	218.2
35	5/31/78	22	21	28.7	6.3	6.3	219.7
35	5/31/78	22	48	1.3	6.9	6.9	220.2
35	5/31/78	23	46	0.3	7.2	7.2	220.5
35	6/ 1/78	1	58	0.1	7.5	0.3	220.8
35	6/ 1/78	5	38	0.1	7.7	0.6	221.1
35	6/ 1/78	5	43	13.8	8.9	1.7	222.2
35	6/ 1/78	5	48	3.4	9.2	2.0	222.5
35	6/ 1/78	5	54	11.5	10.3	3.2	223.7
35	6/ 1/78	6	5	1.6	10.6	3.4	224.0
35	6/ 1/78	6	34	1.2	11.2	4.0	224.5
35	6/ 6/78			NO DATA	0.0	0.0	224.5
35	6/ 6/78			NO DATA	0.5	0.5	225.0
35	6/ 7/78			NO DATA	0.0	0.0	225.0
35	6/ 7/78			NO DATA	1.3	1.3	226.3
35	6/14/78	12	50	0.0	0.0	0.0	226.3
35	6/14/78	13	4	3.9	0.9	0.9	227.2
35	6/14/78	13	14	5.5	1.8	1.8	228.1
35	6/14/78	13	20	6.1	2.4	2.4	228.7
35	6/14/78	13	30	7.3	3.7	3.7	230.0
35	6/14/78	13	36	3.0	4.0	4.0	230.3
35	6/14/78	13	43	7.8	4.9	4.9	231.2
35	6/14/78	13	50	2.6	5.2	5.2	231.5
35	6/14/78	13	56	9.1	6.1	6.1	232.4
35	6/14/78	14	10	5.2	7.3	7.3	233.6
35	6/14/78	14	16	3.0	7.6	7.6	233.9
35	6/14/78	21	15	0.0	0.0	7.6	233.9
35	6/14/78	22	50	0.3	0.5	8.2	234.5
35	6/14/78	23	5	2.1	1.1	8.7	235.0
35	6/14/78	23	15	1.6	1.3	9.0	235.3
35	6/14/78	23	21	5.4	1.9	9.5	235.8
35	6/15/78	0	48	0.4	2.4	0.5	236.3
35	6/15/78	1	2	1.1	2.7	0.8	236.6
35	6/15/78	1	8	21.4	4.8	2.9	238.7
35	6/15/78	1	12	4.0	5.1	3.2	239.0
35	6/15/78	1	19	29.8	6.6	5.7	242.5
35	6/15/78	1	30	7.3	9.9	8.0	243.8
35	6/15/78	1	38	4.0	10.4	8.6	244.4
35	6/15/78	1	42	8.0	11.0	9.1	244.9
35	6/15/78	1	47	6.4	11.5	9.6	245.4
35	6/15/78	1	52	9.6	12.3	10.4	246.2
35	6/15/78	1	59	6.9	13.1	11.2	247.0
35	6/15/78	2	7	4.0	13.6	11.8	247.6
35	6/15/78	2	35	1.1	14.2	12.3	248.1
35	6/15/78	2	40	3.2	14.4	12.6	248.4
35	6/15/78	2	57	1.9	15.0	13.1	248.9
35	6/15/78	3	30	1.5	15.8	13.9	249.7
35	6/15/78	3	42	4.0	16.6	14.7	250.5
35	6/15/78	3	50	4.0	17.1	15.3	251.1
35	6/15/78	4	6	2.0	17.7	15.8	251.6
35	6/15/78	4	11	5.4	18.2	16.3	252.1
35	6/15/78	4	30	2.5	19.0	17.1	252.9
35	6/15/78	4	50	2.4	19.8	17.9	253.7
35	6/15/78	5	30	2.4	20.1	18.2	254.0
35	6/17/78			NO DATA	0.0	0.0	254.0
35	6/17/78			NO DATA	0.5	0.5	254.5
35	6/17/78			NO DATA	0.0	0.5	254.5
35	6/17/78			NO DATA	4.6	5.1	259.1
35	6/20/78	0	28	0.0	0.0	0.3	259.1
35	6/20/78	0	33	16.1	1.3	1.3	260.4
35	6/20/78	0	47	2.3	1.9	1.9	261.0
35	6/20/78	0	50	30.6	5.9	5.9	265.0
35	6/20/78	0	54	28.2	7.8	7.8	266.9
35	6/20/78	0	58	112.8	15.3	15.3	274.4
35	6/20/78	1	1	48.3	17.7	17.7	276.8
35	6/20/78	1	3	58.6	20.7	20.7	279.8
35	6/20/78	1	5	40.3	22.0	22.0	281.1
35	6/20/78	1	7	8.1	22.3	22.3	281.4
35	6/20/78	1	8	16.1	22.6	22.6	281.6
35	6/20/78	1	10	8.1	22.8	22.8	281.9
35	6/20/78	1	11	48.3	23.6	23.6	282.7
35	6/20/78	1	20	12.5	25.5	25.5	284.6
35	6/20/78	1	29	13.7	27.1	27.1	286.2
35	6/20/78	1	33	8.1	27.7	27.7	286.7
35	6/20/78	1	37	12.1	28.5	28.5	287.5
35	6/20/78	1	43	5.4	29.0	29.0	288.1
35	6/20/78	1	54	2.9	29.5	29.5	288.6
35	6/20/78	2	2	4.0	30.1	30.1	289.2
35	6/20/78	2	14	6.7	31.4	31.4	290.5
35	6/20/78	2	16	40.3	32.8	32.8	291.8
35	6/20/78	2	22	8.1	33.6	33.6	292.6
35	6/20/78	2	34	9.4	35.4	35.4	294.3
35	6/20/78	2	43	9.0	36.8	36.8	295.9
35	6/20/78	2	57	5.8	38.1	38.1	297.2
35	6/20/78	3	10	3.7	38.9	38.9	298.0
35	6/20/78	3	35	1.9	39.7	39.7	298.8
35	6/20/78	4	36	1.1	40.8	40.8	299.9
35	6/20/78	5	5	0.6	41.1	41.1	300.2
35	6/20/78	5	35	0.5	41.4	41.4	300.4
35	6/20/78	6	20	1.1	42.2	42.2	301.2
35	6/23/78			NO DATA	0.0	0.0	301.2

TABLE B1-17. CONTINUED

GAGE	DATE	HOUR	MIN	PRECIP INTENSITY MM/HR	ACCUMULATED STORM MM	PRECIPITATION DAY MM	PRECIPITATION YEAR MM
35	6/23/78			NO DATA	1.3	1.3	302.5
35	6/26/78			NO DATA	0.0	0.0	302.5
35	6/26/78			NO DATA	1.0	1.0	303.5
35	6/28/78	15	50	0.0	0.0	0.0	303.5
35	6/28/78	15	56	2.8	0.3	0.3	303.8
35	6/28/78	16	1	13.3	1.4	1.4	304.9
35	6/28/78	16	20	0.9	1.7	1.7	305.2
35	6/28/78	16	26	2.8	1.9	1.9	305.5
35	6/28/78	16	37	4.5	2.8	2.8	306.3
35	6/28/78	16	41	20.8	4.2	4.2	307.7
35	6/28/78	16	43	16.6	4.7	4.7	308.2
35	6/28/78	16	45	8.3	5.0	5.0	308.5
35	6/28/78	16	47	33.3	6.1	6.1	309.6
35	6/28/78	16	50	61.0	9.1	9.1	312.7
35	6/28/78	16	52	24.9	10.0	10.0	313.5
35	6/28/78	16	54	41.6	11.4	11.4	314.9
35	6/28/78	16	55	49.9	12.2	12.2	315.7
35	7/ 6/78	1	30	0.0	0.0	0.0	315.7
35	7/ 6/78	1	43	5.0	1.1	1.1	316.8
35	7/ 6/78	1	48	6.5	1.6	1.6	317.3
35	7/ 6/78	1	50	16.2	2.2	2.2	317.9
35	7/ 6/78	1	51	81.1	3.5	3.5	319.2
35	7/ 6/78	1	57	10.8	4.6	4.6	320.3
35	7/ 6/78	2	0	32.4	6.2	6.2	321.9
35	7/ 6/78	2	8	2.0	6.5	6.5	322.2
35	7/ 6/78	3	25	0.6	7.3	7.3	323.0
35	7/ 6/78	4	10	1.4	8.4	8.4	324.1
35	7/ 6/78	22	48	0.0	0.0	8.4	324.1
35	7/ 6/78	23	5	2.7	0.8	9.1	324.9
35	7/ 6/78	23	30	1.2	1.3	9.7	325.4
35	7/ 6/78	23	46	1.9	1.8	10.2	325.9
35	7/ 7/78	0	5	2.4	2.5	0.8	326.6
35	7/ 7/78	2	3	0.1	2.8	1.0	326.9
35	7/ 7/78	2	45	4.0	5.6	3.8	329.7
35	7/ 7/78	2	57	3.8	6.3	4.6	330.4
35	7/ 8/78	23	40	0.0	0.0	0.0	330.4
35	7/ 8/78	23	45	5.7	0.5	0.5	330.9
35	7/ 8/78	23	47	35.5	1.7	1.7	332.1
35	7/ 8/78	24	0	2.2	2.1	2.1	332.6
35	7/ 9/78	0	6	9.5	3.1	0.9	333.5
35	7/ 9/78	0	23	2.5	3.8	1.7	334.2
35	7/ 9/78	0	50	0.5	4.0	1.9	334.5
35	7/ 9/78	1	7	1.7	4.5	2.4	334.9
35	7/ 9/78	1	23	2.7	5.2	3.1	335.6
35	7/ 9/78	2	5	2.4	6.9	4.7	337.3
35	7/12/78			NO DATA	0.0	0.0	337.3
35	7/12/78			NO DATA	4.6	4.6	341.9
35	7/17/78			NO DATA	0.0	0.0	341.9
35	7/17/78			NO DATA	3.8	3.8	345.7
35	7/18/78	4	55	0.0	0.0	0.0	345.7
35	7/18/78	4	58	10.5	0.5	0.5	346.2
35	7/18/78	5	4	5.2	1.0	1.0	346.7
35	7/18/78	5	15	1.4	1.3	1.3	347.0
35	7/18/78	5	34	1.7	1.8	1.8	347.5
35	7/18/78	5	40	7.9	2.6	2.6	348.3
35	7/18/78	5	47	4.5	3.1	3.1	348.8
35	7/18/78	5	54	2.2	3.4	3.4	349.1
35	7/18/78	6	7	1.2	3.7	3.7	349.4
35	7/18/78	6	15	3.9	4.2	4.2	349.9
35	7/18/78	6	22	2.2	4.5	4.5	350.1
35	7/18/78	6	27	6.3	5.0	5.0	350.7
35	7/18/78	6	34	2.2	5.2	5.2	350.9
35	7/18/78	6	37	21.0	6.3	6.3	352.0
35	7/18/78	8	20	1.1	8.1	8.1	353.8
35	7/18/78	20	57	0.0	0.0	8.1	353.8
35	7/18/78	21	0	32.0	1.6	9.7	355.4
35	7/18/78	21	3	48.0	4.0	12.1	357.8
35	7/18/78	21	6	16.0	4.8	12.9	358.6
35	7/18/78	21	7	80.0	6.1	14.3	359.9
35	7/18/78	21	10	16.0	6.9	15.1	360.7
35	7/18/78	21	26	8.0	9.1	17.2	362.9
35	7/18/78	21	30	4.0	9.3	17.5	363.1
35	7/18/78	21	39	5.3	10.1	18.3	363.9
35	7/18/78	21	50	2.9	10.7	18.8	364.5
35	7/18/78	21	58	2.0	10.9	19.1	364.7
35	7/18/78	22	7	7.1	12.0	20.1	365.8
35	7/18/78	22	15	4.0	12.5	20.7	366.3
35	7/18/78	22	28	4.9	13.6	21.7	367.4
35	7/18/78	22	40	2.7	14.1	22.3	367.9
35	7/18/78	22	44	4.0	14.4	22.5	368.2
35	7/19/78	1	28	0.1	14.7	0.3	368.5
35	7/19/78	1	31	5.3	14.9	0.5	368.7
35	7/19/78	1	39	2.0	15.2	0.8	369.0
35	7/19/78	1	45	10.7	16.3	1.9	370.1
35	7/19/78	1	48	26.7	17.6	3.2	371.4
35	7/19/78	1	50	32.0	18.7	4.3	372.5
35	7/19/78	1	54	32.0	20.8	6.4	374.6
35	7/19/78	2	8	2.3	21.3	6.9	375.1
35	7/19/78	2	19	4.4	22.1	7.7	375.9
35	7/19/78	3	26	0.0	22.1	7.7	375.9
35	7/19/78	3	30	8.0	22.7	8.3	376.5
35	7/19/78	4	55	0.2	22.9	8.5	376.7
35	7/19/78	5	0	48.0	26.9	12.5	380.7
35	7/20/78			NO DATA	0.0	0.0	380.7

TABLE B1-17. CONTINUED

GAGE	DATE	HOUR	MIN	PRECIP INTENSITY MM/HR	ACCUMULATED STORM MM	PRECIPITATION DAY MM	YEAR MM
35	7/20/78			NO DATA	3.0	3.0	383.8
35	7/21/78			NO DATA	0.0	0.0	383.8
35	7/21/78			NO DATA	1.3	1.3	385.0
35	7/22/78			NO DATA	0.0	0.0	385.0
35	7/22/78			NO DATA	2.0	2.0	387.1
35	7/26/78			NO DATA	0.0	0.0	387.1
35	7/26/78			NO DATA	3.8	3.8	390.9
35	8/17/78			NO DATA	0.0	0.0	390.9
35	8/17/78			NO DATA	2.0	2.0	392.9
35	8/21/78	12	0	0.0	0.0	0.0	392.9
35	8/21/78	12	30	1.7	0.8	0.8	393.7
35	8/21/78	12	40	1.7	1.1	1.1	394.0
35	8/21/78	12	49	1.8	1.4	1.4	394.3
35	8/21/78	13	10	3.9	2.8	2.8	395.7
35	8/21/78	13	30	2.5	3.6	3.6	396.5
35	8/21/78	13	40	5.0	4.4	4.4	397.3
35	8/21/78	13	56	3.1	5.2	5.2	398.1
35	8/21/78	14	20	1.4	5.8	5.8	398.7
35	8/21/78	14	33	1.3	6.1	6.1	399.0
35	8/21/78	14	37	8.3	6.6	6.6	399.5
35	8/21/78	14	46	1.8	6.9	6.9	399.8
35	8/21/78	14	49	16.5	7.7	7.7	400.6
35	8/21/78	14	53	4.1	8.0	8.0	400.9
35	8/21/78	14	56	22.0	9.1	9.1	402.0
35	8/21/78	15	1	6.6	9.6	9.6	402.5
35	8/21/78	15	16	2.2	10.2	10.2	403.1
35	8/21/78	15	27	6.0	11.3	11.3	404.2
35	8/21/78	15	35	8.3	12.4	12.4	405.3
35	8/21/78	15	43	0.0	12.4	12.4	405.3
35	8/21/78	15	45	24.8	13.2	13.2	406.1
35	8/21/78	15	47	41.3	14.6	14.6	407.5
35	8/21/78	15	50	33.0	16.2	16.2	409.2
35	8/21/78	15	54	4.1	16.5	16.5	409.4
35	8/26/78	6	2	0.0	0.0	0.0	409.4
35	8/26/78	6	6	81.4	5.4	5.4	414.9
35	8/26/78	6	9	16.3	6.2	6.2	415.7
35	8/26/78	6	14	52.1	10.6	10.6	420.0
35	8/26/78	6	24	16.3	13.3	13.3	422.7
35	8/26/78	6	27	21.7	14.4	14.4	423.8
35	8/26/78	8	30	0.0	14.4	14.4	423.8
35	8/26/78	8	33	32.6	16.0	16.0	425.4
35	8/26/78	8	40	2.3	16.3	16.3	425.7
35	8/26/78	8	43	5.4	16.6	16.6	426.0
35	8/26/78	14	55	0.1	17.1	17.1	426.5
35	8/26/78	15	0	22.8	19.0	19.0	428.4
35	8/26/78	15	4	4.1	19.3	19.3	428.7
35	8/26/78	15	6	8.1	19.5	19.5	429.0
35	8/26/78	15	13	2.3	19.8	19.8	429.2
35	8/26/78	15	24	1.6	20.1	20.1	429.5
35	8/26/78	20	20	0.0	20.1	20.1	429.5
35	8/26/78	20	41	1.6	20.6	20.6	430.0
35	8/26/78	20	45	40.7	23.3	23.3	432.8
35	8/26/78	20	48	27.1	24.7	24.7	434.1
35	8/26/78	20	53	16.3	26.1	26.1	435.5
35	8/26/78	20	59	40.7	30.1	30.1	439.5
35	8/26/78	21	6	81.4	39.6	39.6	449.0
35	8/26/78	21	10	16.3	40.7	40.7	450.1
35	8/26/78	21	14	187.3	53.2	53.2	462.6
35	8/26/78	21	21	69.8	61.3	61.3	470.8
35	8/26/78	21	26	22.8	63.2	63.2	472.7
35	8/26/78	21	34	8.1	64.3	64.3	473.7
35	8/26/78	21	40	29.9	67.3	67.3	476.7
35	8/26/78	22	10	3.3	68.9	68.9	478.4
35	8/26/78	22	11	16.3	69.2	69.2	478.6
35	8/26/78	22	16	6.5	69.7	69.7	479.2
35	8/26/78	22	26	4.9	70.6	70.6	480.0
35	8/26/78	22	34	8.1	71.6	71.6	481.1
35	8/26/78	22	38	28.5	73.5	73.5	483.0
35	8/26/78	22	45	4.7	74.1	74.1	483.5
35	8/26/78	23	5	6.5	76.3	76.3	485.7
35	8/26/78	23	34	7.9	80.1	80.1	489.5
35	8/27/78	0	11	4.4	82.8	2.7	492.2
35	8/27/78	0	23	2.7	83.3	3.3	492.7
35	8/27/78	11	20	0.2	85.5	5.4	494.9
35	8/27/78	11	34	18.6	89.8	9.8	499.3
35	8/27/78	11	40	5.4	90.4	10.3	499.8
35	8/27/78	11	50	4.9	91.2	11.1	500.6
35	8/27/78			NO DATA	0.0	11.1	500.6
35	8/27/78			NO DATA	1.8	12.9	502.4
35	9/12/78	22	55	0.0	0.0	0.0	502.4
35	9/12/78	23	6	3.0	0.5	0.5	502.9
35	9/12/78	23	28	20.1	7.9	7.9	510.3
35	9/12/78	23	34	8.2	8.7	8.7	511.1
35	9/12/78	23	40	30.1	11.8	11.8	514.1
35	9/12/78	23	48	12.3	13.4	13.4	515.8
35	9/13/78	0	3	1.1	13.7	0.3	516.1
35	9/13/78	0	11	2.1	13.9	0.5	516.3
35	9/13/78	0	30	0.9	14.2	0.8	516.6
35	9/13/78	0	40	8.2	15.6	2.2	518.0
35	9/13/78	0	50	3.3	16.1	2.7	518.5
35	9/13/78	1	3	1.3	16.4	3.0	518.8
35	9/13/78	1	12	3.6	17.0	3.6	519.3
35	9/13/78	2	27	0.2	17.2	3.8	519.6
35	9/13/78	2	29	16.4	17.8	4.4	520.2
35	9/13/78	2	52	2.1	18.6	5.2	521.0
35	9/13/78	2	55	5.5	18.9	5.5	521.2

TABLE B1-17. CONTINUED

GAGE	DATE	HOUR	MIN	PRECIP INTENSITY MM/HR	ACCUMULATED STORM MM	PRECIPITATION DAY MM	PRECIPITATION YEAR MM
35	9/13/78	3	1	13.7	20.2	6.8	522.6
35	9/13/78	3	14	3.8	21.1	7.7	523.4
35	9/13/78	3	20	5.5	21.6	8.2	524.0
35	9/13/78	3	30	3.3	22.1	8.7	524.5
35	9/13/78	3	45	5.5	23.5	10.1	525.9
35	9/13/78	5	3	0.8	24.6	11.2	527.0
35	9/13/78	5	10	4.7	25.2	11.8	527.5
35	9/13/78	5	14	8.2	25.7	12.3	528.1
35	9/13/78	5	18	32.8	27.9	14.5	530.3
35	9/13/78	5	23	9.8	28.7	15.3	531.1
35	9/13/78	5	41	3.6	29.8	16.4	532.2
35	9/13/78	5	52	8.9	31.4	18.0	533.8
35	9/13/78	6	0	6.2	32.3	18.9	534.6
35	9/13/78	6	16	4.1	33.4	20.0	535.7
35	9/13/78	6	39	6.4	35.8	22.4	538.2
35	9/13/78	21	22	0.0	0.0	22.4	538.2
35	9/13/78	21	26	12.0	0.8	23.2	539.0
35	9/13/78	21	27	79.9	2.1	24.5	540.3
35	9/13/78	21	29	32.0	3.2	25.6	541.4
35	9/13/78	21	35	10.7	4.3	26.7	542.5
35	9/13/78	21	37	127.9	8.5	30.9	546.7
35	9/13/78	21	50	20.9	13.1	35.5	551.3
35	9/13/78	22	3	1.2	13.3	35.7	551.5
35	9/13/78	22	5	16.0	13.9	36.3	552.1
35	9/13/78	22	12	2.3	14.1	36.5	552.3
35	9/13/78	22	13	80.0	15.5	37.9	553.6
35	9/13/78	22	16	32.0	17.1	39.5	555.2
35	9/13/78	22	21	3.2	17.3	39.7	555.5
35	9/13/78	22	45	12.7	22.4	44.8	560.6
35	9/13/78	22	54	60.4	31.4	53.9	569.6
35	9/13/78	23	1	22.8	34.1	56.5	572.3
35	9/13/78	23	6	6.4	34.6	57.1	572.8
35	9/13/78	23	19	3.7	35.4	57.9	573.6
35	9/13/78	23	36	4.7	36.8	59.2	575.0
35	9/13/78	23	48	5.3	37.8	60.3	576.0
35	9/13/78	23	56	2.0	38.1	60.5	576.3
35	9/14/78	0	24	5.7	40.8	2.7	579.0
35	9/14/78	0	33	3.6	41.3	3.2	579.5
35	9/14/78	0	49	6.0	42.9	4.8	581.1
35	9/14/78	0	57	4.0	43.4	5.3	581.6
35	9/16/78			NO DATA	0.0	0.0	581.6
35	9/16/78			NO DATA	2.0	2.0	583.7
35	9/17/78	18	45	0.0	0.0	0.0	583.7
35	9/17/78	19	50	2.2	2.4	2.4	586.1
35	9/17/78	20	11	3.8	3.7	3.7	587.4
35	9/17/78	20	28	2.8	4.5	4.5	588.2
35	9/17/78	20	35	4.6	5.1	5.1	588.7
35	9/17/78	20	56	3.2	6.1	6.1	589.8
35	9/17/78	21	13	6.2	8.0	8.0	591.7
35	9/17/78	21	26	3.7	8.8	8.8	592.5
35	9/17/78	22	0	0.9	9.3	9.3	593.0
35	9/17/78	22	8	2.0	9.6	9.6	593.3
35	9/17/78	22	25	3.8	10.7	10.7	594.3
35	9/17/78	22	38	2.5	11.2	11.2	594.9
35	9/17/78	22	57	2.5	12.0	12.0	595.7
35	9/17/78	23	22	0.6	12.3	12.3	595.9
35	9/17/78	23	36	1.1	12.5	12.5	596.2
35	9/18/78	0	5	0.6	12.8	0.3	596.5
35	9/18/78	0	20	2.1	13.3	0.8	597.0
35	9/18/78	0	35	4.3	14.4	1.9	598.1
35	9/18/78	0	45	4.8	15.2	2.7	598.9
35	9/18/78	1	10	1.9	16.0	3.5	599.7
35	9/19/78	19	2	0.0	0.0	0.0	599.7
35	9/19/78	19	6	8.1	0.5	0.5	600.2
35	9/19/78	19	18	36.3	7.8	7.8	607.5
35	9/19/78	19	34	2.0	8.3	8.3	608.0
35	9/19/78	19	40	75.3	15.9	15.9	615.5
35	9/19/78	19	42	16.1	16.4	16.4	616.1
35	9/19/78	21	12	0.4	16.9	16.9	616.6
35	9/19/78	21	14	16.1	17.5	17.5	617.1
35	9/19/78	21	18	117.0	25.3	25.3	624.9
35	9/19/78	21	20	16.1	25.8	25.8	625.5
35	9/19/78	21	34	2.3	26.4	26.4	626.0
35	9/19/78	21	44	1.6	26.6	26.6	626.3
35	9/19/78	22	22	1.3	27.4	27.4	627.1
35	9/19/78	22	48	0.6	27.7	27.7	627.4
35	9/19/78	22	49	16.1	28.0	28.0	627.6
35	9/19/78	23	2	1.2	28.2	28.2	627.9
35	9/19/78	23	15	2.5	28.8	28.8	628.4
35	9/19/78	23	20	6.5	29.3	29.3	629.0
35	9/19/78	23	35	1.1	29.6	29.6	629.2
35	9/19/78	23	51	1.0	29.9	29.9	629.5
35	9/19/78	23	55	4.0	30.1	30.1	629.8
35	9/20/78	0	26	0.5	30.4	0.3	630.1
35	9/20/78	0	28	8.1	30.7	0.5	630.3
35	9/20/78	0	51	1.4	31.2	1.1	630.9
35	9/20/78	0	56	42.0	34.7	4.6	634.4
35	9/20/78	0	58	24.2	35.5	5.4	635.2
35	9/20/78	1	2	12.1	36.3	6.2	636.0
35	9/20/78	1	25	3.5	37.7	7.5	637.3
35	9/20/78	1	29	12.1	38.5	8.3	638.1
35	9/20/78	1	38	3.6	39.0	8.9	638.7
35	9/20/78	5	22	0.1	39.5	9.4	639.2
35	9/20/78	5	38	5.0	40.9	10.8	640.6
35	9/20/78	6	6	1.2	41.4	11.3	641.1
35	9/20/78	6	32	1.9	42.2	12.1	641.9
35	9/20/78	6	58	2.5	43.3	13.2	643.0
35	9/20/78	7	22	5.4	45.5	15.3	645.1
35	9/20/78	8	8	0.4	45.7	15.6	645.4
35	9/20/78	8	12	8.1	46.3	16.1	645.9

TABLE B1-17. CONTINUED

GAGE	DATE	HOUR	MIN	PRECIP INTENSITY MM/HR	ACCUMULATED PRECIPITATION STORM MM	DAY MM	YEAR MM
35	9/20/78	8	22	1.6	46.5	16.4	646.2
35	9/20/78	8	37	8.6	48.7	18.6	648.3
35	9/20/78	8	48	10.3	50.6	20.4	650.2
35	9/20/78	9	0	5.4	51.6	21.5	651.3
35	9/20/78	9	12	6.7	53.0	22.9	652.6
35	9/20/78	9	19	4.6	53.5	23.4	653.2
35	9/20/78	9	42	0.7	53.8	23.7	653.5
35	9/20/78	9	47	12.9	54.9	24.7	654.5
35	9/20/78	10	0	2.5	55.4	25.3	655.1
35	9/20/78	10	2	40.4	56.8	26.6	656.4
35	9/20/78	10	5	21.5	57.8	27.7	657.5
35	9/20/78	10	16	2.9	58.4	28.2	658.0
35	9/20/78	10	22	2.7	58.6	28.5	658.3
35	9/20/78	12	59	0.1	58.9	28.8	658.6
35	9/20/78	13	7	2.0	59.2	29.1	658.8
35	9/29/78			NO DATA	0.0	0.0	658.8
35	9/29/78			NO DATA	3.8	3.8	662.6
35	10/ 2/78	12	10	0.0	0.0	0.0	662.6
35	10/ 2/78	12	21	10.9	2.0	2.0	664.6
35	10/ 2/78	12	24	10.0	2.5	2.5	665.1
35	10/ 2/78	12	26	104.8	6.0	6.0	668.6
35	10/ 2/78	12	30	7.5	6.5	6.5	669.1
35	10/ 2/78	12	33	5.0	6.7	6.7	669.4
35	10/ 2/78	12	35	22.5	7.5	7.5	670.1
35	10/ 2/78	12	37	7.5	7.7	7.7	670.4
35	10/ 2/78	12	39	15.0	8.2	8.2	670.9
35	10/ 2/78	12	52	1.2	8.5	8.5	671.1
35	10/ 2/78	13	1	3.3	9.0	9.0	671.6
35	10/ 2/78	13	20	1.6	9.5	9.5	672.1
35	10/ 2/78	13	30	1.5	9.7	9.7	672.4
35	10/ 2/78	13	40	1.5	10.0	10.0	672.6
35	10/ 2/78	14	0	1.5	10.5	10.5	673.1
35	10/ 2/78	14	10	1.5	10.7	10.7	673.4
35	10/ 2/78	14	20	3.0	11.2	11.2	673.9
35	10/ 2/78	14	33	2.3	11.7	11.7	674.4
35	10/ 2/78	14	47	4.3	12.7	12.7	675.4
35	10/ 2/78	15	0	3.5	13.5	13.5	676.1
35	10/ 2/78	15	12	2.5	14.0	14.0	676.6
35	10/ 2/78	15	27	2.0	14.5	14.5	677.1
35	10/ 3/78			NO DATA	0.0	0.0	677.1
35	10/ 3/78			NO DATA	1.3	1.3	678.4
35	10/ 9/78			NO DATA	0.0	0.0	678.4
35	10/ 9/78			NO DATA	7.4	7.4	685.8
35	10/ 9/78	13	50	0.0	7.4	7.4	685.8
35	10/ 9/78	14	12	0.7	7.6	7.6	686.0
35	10/ 9/78	15	30	0.2	7.9	7.9	686.3
35	10/ 9/78	15	38	1.9	8.1	8.1	686.5
35	10/ 9/78	15	44	5.1	8.6	8.6	687.0
35	10/ 9/78	17	2	0.2	8.9	8.9	687.3
35	10/ 9/78	17	7	15.2	10.2	10.2	688.5
35	10/ 9/78	17	13	2.5	10.4	10.4	688.8
35	10/ 9/78	17	25	5.1	11.4	11.4	689.8
35	10/ 9/78	17	43	0.8	11.7	11.7	690.1
35	10/ 9/78	17	49	7.6	12.4	12.4	690.8
35	10/ 9/78	17	58	1.7	12.7	12.7	691.1
35	10/ 9/78	18	4	2.5	13.0	13.0	691.3
35	10/ 9/78	18	10	10.2	14.0	14.0	692.4
35	10/ 9/78	18	30	1.5	14.5	14.5	692.9
35	10/22/78			NO DATA	0.0	0.0	692.9
35	10/22/78			NO DATA	4.8	4.8	697.7
35	11/ 5/78			NO DATA	0.0	0.0	697.7
35	11/ 5/78			NO DATA	1.3	1.3	699.0
35	11/12/78	3	44	0.0	5.4	5.4	704.3
35	11/12/78	4	0	1.0	5.7	5.7	704.6
35	11/12/78	4	34	0.9	6.2	6.2	705.1
35	11/12/78	5	0	0.6	6.5	6.5	705.4
35	11/12/78	5	10	1.6	6.7	6.7	705.7
35	11/12/78	6	5	0.9	7.5	7.5	706.5
35	11/12/78	6	23	2.7	8.3	8.3	707.3
35	11/12/78	6	31	2.0	8.6	8.6	707.6
35	11/12/78	6	53	1.5	9.2	9.2	708.1
35	11/12/78	7	17	0.7	9.4	9.4	708.4
35	11/12/78	7	20	16.1	10.2	10.2	709.2
35	11/12/78	8	2	0.8	10.8	10.8	709.7
35	11/12/78	8	10	6.1	11.6	11.6	710.5
35	11/12/78	8	17	2.3	11.8	11.8	710.8
35	11/12/78	8	20	10.8	12.4	12.4	711.3
35	11/12/78	8	31	4.4	13.2	13.2	712.1
35	11/12/78	8	40	12.6	15.1	15.1	714.0
35	11/12/78	8	50	3.2	15.6	15.6	714.6
35	11/12/78	9	10	1.6	16.1	16.1	715.1
35	11/12/78	10	45	0.5	17.0	17.0	715.9
35	11/12/78	10	50	6.5	17.5	17.5	716.4
35	11/12/78	11	3	2.5	18.0	18.0	717.0
35	11/12/78	11	14	8.8	19.6	19.6	718.6
35	11/12/78	11	33	3.4	20.7	20.7	719.7
35	11/12/78	11	35	32.3	21.8	21.8	720.8
35	11/12/78	11	42	6.9	22.6	22.6	721.6
35	11/12/78	11	54	18.8	26.4	26.4	725.3
35	11/12/78	11	58	4.0	26.6	26.6	725.6
35	11/12/78	12	2	16.1	27.7	27.7	726.7
35	11/12/78	12	16	2.3	28.3	28.3	727.2
35	11/12/78	12	18	16.1	28.8	28.8	727.8
35	11/12/78	12	36	1.8	29.3	29.3	728.3
35	11/12/78	13	8	0.5	29.6	29.6	728.6
35	11/12/78	13	36	1.2	30.1	30.1	729.1
35	11/12/78	13	57	1.5	30.7	30.7	729.6

TABLE B1-17. CONCLUDED

GAGE	DATE	HOUR	MIN	PRECIP INTENSITY MM/HR	ACCUMULATED STORM MM	PRECIPITATION DAY MM	PRECIPITATION YEAR MM
35	11/12/78	14	0	5.4	31.0	31.0	729.9
35	11/12/78	14	17	4.7	32.3	32.3	731.2
35	11/12/78	14	20	26.9	33.6	33.6	732.6
35	11/12/78	14	30	4.8	34.4	34.4	733.4
35	11/12/78	14	40	8.1	35.8	35.8	734.7
35	11/12/78	14	42	40.4	37.1	37.1	736.1
35	11/12/78	15	15	2.4	38.5	38.5	737.4
35	11/12/78	16	20	0.2	38.8	38.8	737.7
35	11/12/78	16	24	4.0	39.0	39.0	738.0
35	11/12/78	16	53	0.6	39.3	39.3	738.2
35	11/12/78	17	27	0.5	39.6	39.6	738.5
35	11/12/78	17	30	5.4	39.8	39.8	738.8
35	11/12/78	18	0	0.5	40.1	40.1	739.1
35	11/12/78	18	48	0.7	40.6	40.6	739.6

GAGE	DATE	HOUR	MIN	PRECIP INTENSITY MM/HR	ACCUMULATED STORM MM	PRECIPITATION DAY MM	PRECIPITATION YEAR MM

TABLE B1-18. FOUR MILE CREEK WATERSHED PRECIPITATION DATA FOR 1978 GAGE 36

GAGE	DATE	HOUR	MIN	PRECIP INTENSITY MM/HR	ACCUMULATED PRECIPITATION STORM MM	DAY MM	YEAR MM
36	1/ 1/78			SNOW	0.0	0.0	0.0
36	1/ 1/78			SNOW	20.1	20.1	20.1
36	1/12/78			SNOW	0.0	0.0	20.1
36	1/12/78			SNOW	6.1	6.1	26.2
36	1/25/78			SNOW	0.0	0.0	26.2
36	1/25/78			SNOW	4.1	4.1	30.2
36	1/31/78			SNOW	0.0	0.0	30.2
36	1/31/78			SNOW	1.0	1.0	31.2
36	2/ 1/78			SNOW	0.0	0.0	31.2
36	2/ 1/78			SNOW	7.1	7.1	38.4
36	2/ 4/78			SNOW	0.0	0.0	38.4
36	2/ 4/78			SNOW	2.0	2.0	40.4
36	2/13/78			SNOW	0.0	0.0	40.4
36	2/13/78			SNOW	2.0	2.0	42.4
36	2/22/78			SNOW	0.0	0.0	42.4
36	2/22/78			SNOW	3.0	3.0	45.5
36	3/ 2/78			SNOW	0.0	0.0	45.5
36	3/ 2/78			SNOW	1.0	1.0	46.5
36	3/11/78			SNOW	0.0	0.0	46.5
36	3/11/78			SNOW	4.1	4.1	50.5
36	3/13/78			SNOW	0.0	0.0	50.5
36	3/13/78			SNOW	2.0	2.0	52.6
36	3/17/78			SNOW	0.0	0.0	52.6
36	3/17/78			SNOW	7.1	7.1	59.7
36	4/ 3/78			NO DATA	0.0	0.0	59.7
36	4/ 3/78			NO DATA	1.0	1.0	60.7
36	4/ 5/78	11	15	0.0	0.0	0.0	60.7
36	4/ 5/78	11	25	3.1	0.5	0.5	61.2
36	4/ 5/78	13	0	0.3	1.0	1.0	61.7
36	4/ 5/78	15	0	0.3	1.5	1.5	62.2
36	4/ 5/78	15	20	0.8	1.8	1.8	62.5
36	4/ 5/78	16	0	0.8	2.3	2.3	63.0
36	4/ 5/78	16	30	2.0	3.3	3.3	64.0
36	4/ 5/78	16	34	7.7	3.8	3.8	64.5
36	4/ 5/78	16	44	9.2	5.4	5.4	66.1
36	4/ 5/78	16	54	6.1	6.4	6.4	67.1
36	4/ 5/78	17	12	2.6	7.2	7.2	67.9
36	4/ 5/78	17	26	5.5	8.5	8.5	69.2
36	4/ 5/78	17	29	20.5	9.5	9.5	70.2
36	4/ 5/78	17	30	76.8	10.8	10.8	71.5
36	4/ 5/78	17	34	15.4	11.8	11.8	72.5
36	4/ 5/78	17	38	49.9	15.1	15.1	75.8
36	4/ 5/78	17	44	20.5	17.2	17.2	77.9
36	4/ 5/78	17	50	12.8	18.4	18.4	79.1
36	4/ 5/78	18	0	7.7	19.7	19.7	80.4
36	4/ 5/78	18	10	9.2	21.3	21.3	82.0
36	4/ 5/78	18	11	76.8	22.5	22.5	83.2
36	4/ 5/78	18	25	9.9	24.8	24.8	85.5
36	4/ 5/78	18	31	2.6	25.1	25.1	85.8
36	4/ 5/78	18	37	7.7	25.9	25.9	86.6
36	4/ 5/78	22	34	0.0	25.9	25.9	86.6
36	4/ 5/78	22	40	2.6	26.1	26.1	86.8
36	4/ 5/78	23	24	0.0	26.1	26.1	86.8
36	4/ 5/78	23	28	7.7	26.6	26.6	87.3
36	4/ 6/78	0	16	1.0	27.4	0.8	88.1
36	4/ 6/78	0	18	15.4	27.9	1.3	88.6
36	4/ 6/78	0	29	2.8	28.4	1.8	89.1
36	4/ 6/78	0	35	15.4	30.0	3.3	90.7
36	4/ 6/78	1	7	0.5	30.2	3.6	90.9
36	4/ 6/78	1	10	10.2	30.7	4.1	91.4
36	4/ 6/78	2	0	0.6	31.2	4.6	91.9
36	4/ 8/78			NO DATA	0.0	0.0	91.9
36	4/ 8/78			NO DATA	1.8	1.8	93.7
36	4/ 8/78			NO DATA	0.0	1.8	93.7
36	4/ 8/78			NO DATA	2.0	3.8	95.8
36	4/ 9/78	17	57	0.0	0.0	0.0	95.8
36	4/ 9/78	18	1	7.7	0.5	0.5	96.3
36	4/ 9/78	18	22	0.7	0.8	0.8	96.5
36	4/ 9/78	18	24	23.2	1.5	1.5	97.3
36	4/ 9/78	18	30	2.6	1.8	1.8	97.6
36	4/ 9/78	18	36	90.1	10.8	10.8	106.6
36	4/ 9/78	18	47	9.8	12.6	12.6	108.4
36	4/ 9/78	18	50	41.2	14.7	14.7	110.4
36	4/ 9/78	18	59	13.7	16.7	16.7	112.5
36	4/ 9/78	19	7	1.9	17.0	17.0	112.7
36	4/ 9/78	19	20	2.4	17.5	17.5	113.3
36	4/ 9/78	19	41	2.2	18.3	18.3	114.0
36	4/ 9/78	23	50	0.1	18.5	18.5	114.3
36	4/10/78	8	50	0.1	19.6	1.0	115.3
36	4/10/78	11	50	0.1	19.8	1.3	115.6
36	4/17/78	10	44	0.0	0.0	0.0	115.6
36	4/17/78	11	54	0.7	0.8	0.8	116.3
36	4/17/78	12	20	1.2	1.3	1.3	116.8
36	4/17/78	12	54	4.5	3.8	3.8	119.4
36	4/17/78	13	4	6.1	4.9	4.9	120.4
36	4/17/78	13	25	8.0	7.7	7.7	123.2
36	4/17/78	13	39	5.5	9.0	9.0	124.5

TABLE 81-18. CONTINUED

GAGE	DATE	HOUR	MIN	PRECIP INTENSITY MM/HR	ACCUMULATED STORM MM	PRECIPITATION DAY MM	PRECIPITATION YEAR MM
36	4/17/78	13	54	10.2	11.5	11.5	127.1
36	4/17/78	14	24	9.2	16.1	16.1	131.7
36	4/17/78	14	48	10.9	20.5	20.5	136.0
36	4/17/78	15	9	7.3	23.0	23.0	138.6
36	4/17/78	15	24	3.1	23.8	23.8	139.4
36	4/17/78	15	29	9.2	24.6	24.6	140.1
36	4/17/78	15	40	2.8	25.1	25.1	140.7
36	4/17/78	15	45	21.5	26.9	26.9	142.4
36	4/17/78	15	55	7.7	28.2	28.2	143.7
36	4/17/78	16	4	5.1	28.9	28.9	144.5
36	4/17/78	16	43	1.6	29.9	29.9	145.5
36	4/17/78	16	50	4.4	30.5	30.5	146.0
36	4/17/78	17	32	0.4	30.7	30.7	146.3
36	4/17/78	18	4	1.9	31.7	31.7	147.3
36	4/17/78	18	27	0.7	32.0	32.0	147.6
36	4/17/78	18	33	2.6	32.3	32.3	147.8
36	4/17/78	18	44	2.8	32.8	32.8	148.3
36	4/17/78	19	7	0.7	33.0	33.0	148.6
36	4/17/78	19	34	1.1	33.5	33.5	149.1
36	4/17/78	19	44	1.5	33.8	33.8	149.4
36	4/17/78	19	59	5.1	35.1	35.1	150.6
36	4/17/78	22	30	0.2	35.6	35.6	151.1
36	4/17/78	22	47	5.4	37.1	37.1	152.7
36	4/17/78	22	54	2.2	37.4	37.4	152.9
36	4/17/78	22	59	9.2	38.1	38.1	153.7
36	4/17/78	23	4	33.8	41.0	41.0	156.5
36	4/17/78	23	15	15.4	43.8	43.8	159.3
36	4/17/78	23	18	20.5	44.8	44.8	160.4
36	4/17/78	23	24	15.4	46.3	46.3	161.9
36	4/17/78	23	40	8.6	48.6	48.6	164.2
36	4/17/78	23	47	11.0	49.9	49.9	165.5
36	4/18/78	0	5	8.5	52.5	2.6	168.0
36	4/18/78	0	18	2.4	53.0	3.1	168.5
36	4/18/78	0	34	5.8	54.5	4.6	170.1
36	4/18/78	0	49	2.0	55.0	5.1	170.6
36	4/18/78	3	29	0.1	55.3	5.4	170.9
36	4/18/78	3	31	7.7	55.5	5.6	171.1
36	4/18/78	4	19	1.6	56.8	6.9	172.4
36	4/18/78	4	21	23.0	57.6	7.7	173.2
36	4/18/78	4	29	3.8	58.1	8.2	173.7
36	4/18/78	4	33	0.0	58.1	8.2	173.7
36	4/18/78	4	47	2.2	58.6	8.7	174.2
36	4/18/78	5	7	3.1	59.6	9.7	175.2
36	4/18/78	5	27	0.8	59.9	10.0	175.5
36	4/18/78	5	34	2.2	60.1	10.2	175.7
36	4/18/78	10	8	0.1	60.7	10.8	176.2
36	4/18/78	10	10	7.7	60.9	11.0	176.5
36	4/18/78	12	14	0.2	61.4	11.5	177.0
36	4/18/78	12	34	0.8	61.7	11.8	177.3
36	4/18/78	14	44	0.1	61.9	12.0	177.5
36	4/18/78	15	3	1.6	62.5	12.5	178.0
36	4/18/78	15	48	0.3	62.7	12.8	178.3
36	4/18/78	15	50	7.7	63.0	13.1	178.5
36	4/18/78	17	3	0.2	63.2	13.3	178.8
36	4/18/78	18	3	0.5	63.7	13.8	179.3
36	4/18/78	22	9	0.1	64.0	14.1	179.6
36	4/18/78	22	14	9.2	64.8	14.8	180.3
36	4/18/78	22	19	6.1	65.3	15.4	180.8
36	4/18/78	23	15	0.3	65.5	15.6	181.1
36	4/19/78	0	34	0.2	65.8	0.3	181.3
36	4/19/78	3	54	0.2	66.5	1.0	182.1
36	4/20/78			NO DATA	0.0	0.0	182.1
36	4/20/78			NO DATA	0.5	0.5	182.6
36	4/22/78	20	38	0.0	0.0	0.0	182.6
36	4/22/78	20	58	1.7	0.6	0.6	183.2
36	4/22/78	21	23	0.7	0.9	0.9	183.5
36	4/22/78	21	45	2.4	1.7	1.7	184.4
36	4/22/78	22	6	1.6	2.3	2.3	184.9
36	4/22/78	22	26	2.6	3.2	3.2	185.8
36	4/22/78	22	45	5.5	4.9	4.9	187.5
36	4/22/78	22	55	1.7	5.2	5.2	187.8
36	4/22/78	23	2	2.5	5.5	5.5	188.1
36	4/22/78	23	8	5.8	6.1	6.1	188.7
36	4/22/78	23	42	0.5	6.3	6.3	189.0
36	5/ 7/78	0	1	0.0	0.0	0.0	189.0
36	5/ 7/78	0	25	2.6	1.0	1.0	190.0
36	5/ 7/78	0	52	3.5	2.6	2.6	191.6
36	5/ 7/78	1	20	5.0	4.9	4.9	193.9
36	5/ 7/78	1	35	5.2	6.2	6.2	195.2
36	5/ 7/78	2	5	7.8	10.1	10.1	199.1
36	5/ 7/78	2	21	5.8	11.7	11.7	200.6
36	5/ 7/78	2	45	1.9	12.4	12.4	201.4
36	5/ 7/78	2	55	1.6	12.7	12.7	201.7
36	5/ 7/78	22	33	0.0	0.0	12.7	201.7
36	5/ 7/78	23	0	5.4	2.4	15.1	204.1
36	5/ 7/78	23	4	9.1	3.0	15.7	204.7
36	5/ 7/78	23	15	5.0	3.9	16.6	205.6
36	5/ 8/78	0	17	0.9	4.8	0.9	206.5
36	5/ 8/78	0	25	6.8	5.8	1.8	207.4
36	5/ 8/78	0	29	4.5	6.1	2.1	207.7
36	5/ 8/78	0	45	2.3	6.7	2.7	208.3
36	5/ 8/78	0	53	2.3	7.0	3.0	208.6
36	5/ 8/78	1	2	6.1	7.9	3.9	209.5
36	5/12/78	19	45	0.0	0.0	0.0	209.5
36	5/12/78	20	3	4.2	1.3	1.3	210.8
36	5/12/78	20	7	7.6	1.8	1.8	211.3
36	5/12/78	20	26	5.6	3.6	3.6	213.1
36	5/12/78	20	39	3.5	4.3	4.3	213.9
36	5/12/78	20	49	3.0	4.8	4.8	214.4

TABLE B1-18. CONTINUED

GAGE	DATE	HOUR	MIN	PRECIP INTENSITY MM/HR	ACCUMULATED STORM MM	PRECIPITATION DAY MM	PRECIPITATION YEAR MM
36	5/12/78	21	11	4.2	6.3	6.3	215.9
36	5/12/78	21	28	4.5	7.6	7.6	217.2
36	5/12/78	21	40	10.2	9.7	9.7	219.2
36	5/12/78	22	1	0.0	9.7	9.7	219.2
36	5/12/78	22	15	2.2	10.2	10.2	219.7
36	5/12/78	22	31	5.7	11.7	11.7	221.2
36	5/12/78	23	12	3.0	13.7	13.7	223.3
36	5/13/78	0	15	4.4	18.3	4.6	227.8
36	5/13/78	0	40	7.9	21.6	7.9	231.1
36	5/13/78	1	45	5.6	27.7	14.0	237.2
36	5/13/78	1	49	11.4	28.4	14.7	238.0
36	5/13/78	1	55	17.8	30.2	16.5	239.8
36	5/13/78	2	5	9.1	31.7	18.0	241.3
36	5/13/78	2	28	5.3	33.8	20.1	243.3
36	5/13/78	3	5	2.9	35.6	21.8	245.1
36	5/13/78	3	38	4.6	38.1	24.4	247.6
36	5/13/78	4	10	6.3	40.4	26.7	249.9
36	5/13/78	4	20	7.6	41.7	27.9	251.2
36	5/13/78	5	35	1.2	43.2	29.5	252.7
36	5/13/78	6	23	3.2	45.7	32.0	255.3
36	5/22/78			NO DATA	0.0	0.0	255.3
36	5/22/78			NO DATA	0.5	0.5	255.8
36	5/27/78			NO DATA	0.0	0.0	255.8
36	5/27/78			NO DATA	3.0	3.0	258.8
36	5/28/78			NO DATA	0.0	0.0	258.8
36	5/28/78			NO DATA	2.8	2.8	261.6
36	5/31/78	22	0	0.0	0.0	0.0	261.6
36	5/31/78	22	2	15.5	0.5	0.5	262.1
36	5/31/78	22	5	5.2	0.8	0.8	262.4
36	5/31/78	22	7	23.3	1.6	1.6	263.2
36	5/31/78	22	8	62.1	2.6	2.6	264.2
36	5/31/78	22	11	5.2	2.8	2.8	264.5
36	5/31/78	22	14	31.1	4.4	4.4	266.0
36	5/31/78	22	16	7.8	4.7	4.7	266.3
36	5/31/78	22	19	31.1	6.2	6.2	267.8
36	5/31/78	22	22	10.4	6.7	6.7	268.3
36	5/31/78	22	23	77.6	8.0	8.0	269.6
36	5/31/78	22	26	15.5	8.8	8.8	270.4
36	5/31/78	23	1	0.9	9.3	9.3	270.9
36	6/ 1/78	5	35	0.1	9.8	0.5	271.5
36	6/ 1/78	5	39	11.6	10.6	1.3	272.2
36	6/ 1/78	5	45	2.6	10.9	1.6	272.5
36	6/ 1/78	5	48	5.2	11.1	1.8	272.7
36	6/ 1/78	5	51	20.7	12.2	2.8	273.8
36	6/ 1/78	5	55	11.6	12.9	3.6	274.6
36	6/ 1/78	6	5	3.1	13.5	4.1	275.1
36	6/ 6/78			NO DATA	0.0	0.0	275.1
36	6/ 6/78			NO DATA	0.5	0.5	275.6
36	6/ 7/78			NO DATA	0.0	0.0	275.6
36	6/ 7/78			NO DATA	2.5	2.5	278.1
36	6/14/78	12	55	0.0	0.0	0.0	278.1
36	6/14/78	13	25	5.8	2.9	2.9	281.0
36	6/14/78	13	45	6.1	4.9	4.9	283.1
36	6/14/78	13	55	5.2	5.8	5.8	283.9
36	6/14/78	14	15	7.0	8.1	8.1	286.2
36	6/14/78	23	3	0.0	0.0	8.1	286.2
36	6/14/78	23	17	3.8	0.9	9.0	287.1
36	6/14/78	23	20	5.9	1.2	9.3	287.4
36	6/15/78	0	46	0.2	1.5	0.3	287.7
36	6/15/78	1	3	3.1	2.3	1.2	288.6
36	6/15/78	1	7	13.2	3.2	2.0	289.5
36	6/15/78	1	10	46.9	5.6	4.4	291.8
36	6/15/78	1	14	4.4	5.9	4.7	292.1
36	6/15/78	1	17	23.4	7.0	5.9	293.3
36	6/15/78	1	20	58.6	10.0	8.8	296.2
36	6/15/78	1	25	17.6	11.4	10.2	297.7
36	6/15/78	1	42	8.3	13.8	12.6	300.0
36	6/15/78	2	6	8.8	17.3	16.1	303.5
36	6/15/78	2	32	2.0	18.2	17.0	304.4
36	6/15/78	2	40	6.6	19.0	17.9	305.3
36	6/15/78	2	54	1.3	19.3	18.2	305.6
36	6/15/78	3	37	2.5	21.1	19.9	307.3
36	6/15/78	3	49	4.4	22.0	20.8	308.2
36	6/15/78	4	7	3.9	23.1	22.0	309.4
36	6/15/78	4	50	2.5	24.9	23.7	311.1
36	6/17/78			NO DATA	0.0	0.0	311.1
36	6/17/78			NO DATA	2.5	2.5	313.7
36	6/20/78	0	50	0.0	0.0	0.0	313.7
36	6/20/78	0	54	82.6	5.5	5.5	319.2
36	6/20/78	0	57	55.1	8.3	8.3	321.9
36	6/20/78	1	0	110.2	13.8	13.8	327.5
36	6/20/78	1	3	27.5	15.2	15.2	328.8
36	6/20/78	1	7	41.3	17.9	17.9	331.6
36	6/20/78	1	13	5.5	18.5	18.5	332.1
36	6/20/78	1	14	49.6	19.3	19.3	333.0
36	6/20/78	1	15	66.1	20.4	20.4	334.1
36	6/20/78	1	24	14.7	22.6	22.6	336.3
36	6/20/78	1	33	11.0	24.2	24.2	337.9
36	6/20/78	1	40	9.4	25.3	25.3	339.0
36	6/20/78	1	50	3.3	25.9	25.9	339.6
36	6/20/78	2	0	3.3	26.4	26.4	340.1
36	6/20/78	2	7	4.7	27.0	27.0	340.7
36	6/20/78	2	9	16.5	27.5	27.5	341.2
36	6/20/78	2	13	12.4	28.4	28.4	342.1

TABLE B1-18. CONTINUED

GAGE	DATE	HOUR	MIN	PRECIP INTENSITY MM/HR	ACCUMULATED STORM MM	PRECIPITATION DAY MM	PRECIPITATION YEAR MM
36	6/20/78	2	17	20.7	29.8	29.8	343.4
36	6/20/78	2	27	6.6	30.9	30.9	344.5
36	6/20/78	2	35	10.3	32.2	32.2	345.9
36	6/20/78	2	45	9.9	33.9	33.9	347.6
36	6/20/78	2	55	6.6	35.0	35.0	348.7
36	6/20/78	3	10	3.3	35.8	35.8	349.5
36	6/20/78	3	30	3.3	36.9	36.9	350.6
36	6/20/78	4	30	0.8	37.7	37.7	351.4
36	6/20/78	4	43	2.5	38.3	38.3	352.0
36	6/20/78	5	4	0.8	38.6	38.6	352.2
36	6/20/78	5	10	2.8	38.8	38.8	352.5
36	6/20/78	5	40	0.6	39.1	39.1	352.8
36	6/23/78			NO DATA	0.0	0.0	352.8
36	6/23/78			NO DATA	1.5	1.5	354.3
36	6/26/78			NO DATA	0.0	0.0	354.3
36	6/26/78			NO DATA	1.3	1.3	355.6
36	6/28/78	15	48	0.0	0.0	0.0	355.6
36	6/28/78	15	52	114.3	7.6	7.6	363.2
36	6/28/78	15	57	3.7	7.9	7.9	363.5
36	6/28/78	16	0	24.4	9.1	9.1	364.7
36	6/28/78	16	23	0.8	9.4	9.4	365.0
36	6/28/78	16	30	7.8	10.4	10.4	365.9
36	6/28/78	16	35	3.7	10.7	10.7	366.3
36	6/28/78	16	39	13.7	11.6	11.6	367.2
36	6/28/78	16	45	3.0	11.9	11.9	367.5
36	6/28/78	16	48	42.7	14.0	14.0	369.6
36	6/28/78	16	52	9.1	14.6	14.6	370.2
36	6/28/78	16	58	6.1	15.2	15.2	370.8
36	6/29/78			NO DATA	0.0	0.0	370.8
36	6/29/78			NO DATA	2.5	2.5	373.4
36	7/ 6/78	1	50	0.0	0.0	0.0	373.4
36	7/ 6/78	1	53	11.2	0.6	0.6	373.9
36	7/ 6/78	1	54	67.1	1.7	1.7	375.0
36	7/ 6/78	2	0	8.4	2.5	2.5	375.9
36	7/ 6/78	2	5	10.1	3.4	3.4	376.7
36	7/ 6/78	2	20	2.2	3.9	3.9	377.3
36	7/ 6/78	3	20	0.3	4.2	4.2	377.6
36	7/ 6/78	3	30	3.4	4.7	4.7	378.1
36	7/ 6/78	4	0	1.7	5.6	5.6	379.0
36	7/ 6/78	22	50	0.0	0.0	5.6	379.0
36	7/ 6/78	23	5	3.2	0.8	6.4	379.7
36	7/ 6/78	23	32	1.2	1.3	6.9	380.3
36	7/ 6/78	23	58	2.4	2.4	8.0	381.3
36	7/ 7/78	0	13	2.1	2.9	0.5	381.8
36	7/ 7/78	0	30	0.9	3.2	0.8	382.1
36	7/ 7/78	0	51	1.5	3.7	1.3	382.6
36	7/ 7/78	2	10	0.2	3.9	1.6	382.9
36	7/ 7/78	2	40	4.2	6.0	3.7	385.0
36	7/ 7/78	2	50	6.3	7.1	4.7	386.0
36	7/ 7/78	3	2	2.6	7.6	5.3	386.6
36	7/ 8/78			NO DATA	0.0	0.0	386.6
36	7/ 8/78			NO DATA	2.5	2.5	389.1
36	7/ 9/78			NO DATA	0.0	0.0	389.1
36	7/ 9/78			NO DATA	4.1	4.1	393.2
36	7/12/78			NO DATA	0.0	0.0	393.2
36	7/12/78			NO DATA	3.8	3.8	397.0
36	7/17/78			NO DATA	0.0	0.0	397.0
36	7/17/78			NO DATA	5.1	5.1	402.1
36	7/18/78	5	0	0.0	0.0	0.0	402.1
36	7/18/78	5	5	3.0	0.2	0.2	402.3
36	7/18/78	5	6	59.3	1.2	1.2	403.3
36	7/18/78	5	35	2.0	2.2	2.2	404.3
36	7/18/78	5	40	5.9	2.7	2.7	404.8
36	7/18/78	5	47	8.5	3.7	3.7	405.8
36	7/18/78	6	10	1.3	4.2	4.2	406.3
36	7/18/78	6	35	3.0	5.4	5.4	407.5
36	7/18/78	6	36	59.3	6.4	6.4	408.5
36	7/18/78	6	39	14.8	7.2	7.2	409.2
36	7/18/78	7	0	1.4	7.7	7.7	409.7
36	7/18/78	8	10	0.8	8.6	8.6	410.7
36	7/18/78	8	40	0.5	8.9	8.9	411.0
36	7/18/78	20	50	0.0	0.0	8.9	411.0
36	7/18/78	20	58	3.6	0.5	9.4	411.4
36	7/18/78	21	4	36.2	4.1	13.0	415.0
36	7/18/78	21	5	101.3	5.8	14.7	416.7
36	7/18/78	21	6	101.3	7.5	16.4	418.4
36	7/18/78	21	10	18.1	8.7	17.6	419.6
36	7/18/78	21	14	3.6	8.9	17.8	419.9
36	7/18/78	21	16	21.7	9.6	18.5	420.6
36	7/18/78	21	26	4.3	10.4	19.3	421.3
36	7/18/78	21	33	2.1	10.6	19.5	421.6
36	7/18/78	21	40	6.2	11.3	20.2	422.3
36	7/18/78	21	58	2.4	12.1	20.9	423.0
36	7/18/78	22	15	6.0	13.7	22.6	424.7
36	7/18/78	22	44	3.0	15.2	24.1	426.1
36	7/18/78	23	10	0.6	15.4	24.3	426.4
36	7/19/78	1	32	0.1	15.7	0.2	426.6
36	7/19/78	1	40	3.6	16.1	0.7	427.1
36	7/19/78	1	44	14.5	17.1	1.7	428.1
36	7/19/78	1	52	7.2	18.1	2.7	429.0
36	7/19/78	1	54	14.5	18.6	3.1	429.5
36	7/19/78	1	58	7.2	19.0	3.6	430.0

TABLE B1-18. CONTINUED

GAGE	DATE	HOUR	MIN	PRECIP INTENSITY MM/HR	ACCUMULATED STORM MM	PRECIPITATION DAY MM	PRECIPITATION YEAR MM
36	7/19/78	2	9	1.3	19.3	3.9	430.2
36	7/19/78	2	16	2.1	19.5	4.1	430.5
36	7/19/78	2	20	3.6	19.8	4.3	430.7
36	7/19/78	3	26	0.2	20.0	4.6	431.0
36	7/19/78	3	29	9.6	20.5	5.1	431.4
36	7/19/78	3	40	1.3	20.7	5.3	431.7
36	7/19/78	3	46	2.4	21.0	5.5	431.9
36	7/19/78	4	58	0.2	21.2	5.8	432.2
36	7/19/78	5	0	14.5	21.7	6.3	432.6
36	7/19/78	5	1	101.2	23.4	8.0	434.3
36	7/19/78	5	10	1.6	23.6	8.2	434.6
36	7/20/78			NO DATA	0.0	0.0	434.6
36	7/20/78			NO DATA	3.3	3.3	437.9
36	7/21/78			NO DATA	0.0	0.0	437.9
36	7/21/78			NO DATA	2.0	2.0	439.9
36	7/22/78			NO DATA	0.0	0.0	439.9
36	7/22/78			NO DATA	4.1	4.1	444.0
36	7/26/78			NO DATA	0.0	0.0	444.0
36	7/26/78			NO DATA	5.1	5.1	449.0
36	8/17/78			NO DATA	0.0	0.0	449.0
36	8/17/78			NO DATA	1.3	1.3	450.3
36	8/21/78	12	0	0.0	0.0	0.0	450.3
36	8/21/78	12	20	4.0	1.3	1.3	451.7
36	8/21/78	12	54	1.0	1.9	1.9	452.2
36	8/21/78	13	10	10.1	4.6	4.6	454.9
36	8/21/78	13	20	4.8	5.4	5.4	455.7
36	8/21/78	13	36	1.0	5.7	5.7	456.0
36	8/21/78	13	40	4.0	5.9	5.9	456.2
36	8/21/78	13	50	4.8	6.7	6.7	457.1
36	8/21/78	14	0	1.6	7.0	7.0	457.3
36	8/21/78	14	20	1.6	7.5	7.5	457.9
36	8/21/78	14	36	1.0	7.8	7.8	458.1
36	8/21/78	14	40	4.0	8.1	8.1	458.4
36	8/21/78	14	49	1.8	8.4	8.4	458.7
36	8/21/78	14	54	9.7	9.2	9.2	459.5
36	8/21/78	14	57	5.4	9.4	9.4	459.7
36	8/21/78	15	0	10.8	10.0	10.0	460.3
36	8/21/78	15	10	4.8	10.8	10.8	461.1
36	8/21/78	15	15	3.2	11.0	11.0	461.4
36	8/21/78	15	23	2.0	11.3	11.3	461.6
36	8/21/78	15	26	16.2	12.1	12.1	462.4
36	8/21/78	15	30	4.0	12.4	12.4	462.7
36	8/21/78	15	40	6.5	13.5	13.5	463.8
36	8/21/78	15	46	0.0	13.5	13.5	463.8
36	8/21/78	15	50	28.3	15.4	15.4	465.7
36	8/21/78	16	0	6.5	16.4	16.4	466.7
36	8/21/78	16	16	5.1	17.8	17.8	468.1
36	8/26/78	6	5	0.0	0.0	0.0	468.1
36	8/26/78	6	15	20.4	3.4	3.4	471.5
36	8/26/78	6	31	8.8	5.7	5.7	473.8
36	8/26/78	6	59	0.6	6.0	6.0	474.1
36	8/26/78	8	43	0.0	6.0	6.0	474.1
36	8/26/78	11	38	0.2	6.5	6.5	474.6
36	8/26/78	14	30	0.3	7.3	7.3	475.4
36	8/26/78	14	52	0.7	7.6	7.6	475.7
36	8/26/78	14	59	13.4	9.1	9.1	477.2
36	8/26/78	15	5	5.2	9.7	9.7	477.8
36	8/26/78	15	11	28.7	12.5	12.5	480.6
36	8/26/78	15	15	27.4	14.4	14.4	482.5
36	8/26/78	15	18	52.2	17.0	17.0	485.1
36	8/26/78	15	25	6.7	17.8	17.8	485.8
36	8/26/78	20	25	0.0	17.8	17.8	485.8
36	8/26/78	20	35	4.7	18.5	18.5	486.6
36	8/26/78	20	46	7.1	19.8	19.8	487.9
36	8/26/78	20	48	70.5	22.2	22.2	490.3
36	8/26/78	20	58	42.3	29.2	29.2	497.3
36	8/26/78	21	18	59.5	49.1	49.1	517.2
36	8/26/78	21	25	67.1	56.9	56.9	525.0
36	8/26/78	21	35	15.7	59.5	59.5	527.6
36	8/26/78	21	42	22.4	62.1	62.1	530.2
36	8/26/78	22	13	2.0	63.2	63.2	531.3
36	8/26/78	22	21	7.8	64.2	64.2	532.3
36	8/26/78	22	36	3.1	65.0	65.0	533.1
36	8/26/78	22	42	23.5	67.4	67.4	535.4
36	8/26/78	22	48	2.6	67.6	67.6	535.7
36	8/26/78	22	57	3.5	68.1	68.1	536.2
36	8/26/78	23	20	8.2	71.3	71.3	539.4
36	8/27/78	0	23	5.0	76.5	5.2	544.6
36	8/27/78	0	56	0.5	76.8	5.5	544.8
36	8/27/78	7	25	0.1	77.3	6.0	545.4
36	8/27/78	7	29	7.8	77.8	6.5	545.9
36	8/27/78	11	26	0.0	77.8	6.5	545.9
36	8/27/78	11	30	50.9	81.2	9.9	549.3
36	8/27/78	11	36	5.2	81.7	10.4	549.8
36	8/27/78	11	37	78.3	83.0	11.7	551.1
36	8/27/78	11	47	4.7	83.8	12.5	551.9
36	8/27/78	13	25	0.3	84.3	13.1	552.4
36	8/27/78			NO DATA	0.0	13.1	552.4
36	8/27/78			NO DATA	1.8	14.8	554.2
36	9/12/78	23	0	0.0	0.0	0.0	554.2
36	9/12/78	23	3	15.4	0.8	0.8	555.0
36	9/12/78	23	7	7.7	1.3	1.3	555.5
36	9/12/78	23	12	15.3	2.6	2.6	556.8
36	9/12/78	23	14	38.4	3.8	3.8	558.0
36	9/12/78	23	17	15.3	4.6	4.6	558.8

TABLE B1-18. CONTINUED

GAGE	DATE	HOUR	MIN	PRECIP INTENSITY MM/HR	ACCUMULATED STORM MM	PRECIPITATION DAY MM	PRECIPITATION YEAR MM
36	9/12/78	23	19	15.3	5.1	5.1	559.3
36	9/12/78	23	21	38.4	6.4	6.4	560.6
36	9/12/78	23	24	10.2	6.9	6.9	561.1
36	9/12/78	23	26	23.0	7.7	7.7	561.9
36	9/12/78	23	29	25.6	9.0	9.0	563.1
36	9/12/78	23	32	20.5	10.0	10.0	564.2
36	9/12/78	23	40	5.8	10.7	10.7	564.9
36	9/12/78	23	41	61.4	11.8	11.8	566.0
36	9/12/78	23	45	19.2	13.0	13.0	567.2
36	9/12/78	23	50	9.2	13.8	13.8	568.0
36	9/12/78	23	55	9.2	14.6	14.6	568.8
36	9/12/78	24	0	3.1	14.8	14.8	569.0
36	9/13/78	0	18	0.9	15.1	0.3	569.3
36	9/13/78	0	36	0.9	15.3	0.5	569.5
36	9/13/78	0	44	3.8	15.9	1.0	570.1
36	9/13/78	0	50	7.7	16.6	1.8	570.8
36	9/13/78	0	58	1.9	16.9	2.0	571.1
36	9/13/78	1	7	1.7	17.1	2.3	571.3
36	9/13/78	1	16	3.4	17.7	2.8	571.8
36	9/13/78	2	31	0.2	17.9	3.1	572.1
36	9/13/78	2	34	10.2	18.4	3.6	572.6
36	9/13/78	2	53	1.6	18.9	4.1	573.1
36	9/13/78	3	6	9.4	21.0	6.1	575.2
36	9/13/78	3	13	2.2	21.2	6.4	575.4
36	9/13/78	3	23	6.1	22.3	7.4	576.4
36	9/13/78	3	30	2.2	22.5	7.7	576.7
36	9/13/78	3	40	3.1	23.0	8.2	577.2
36	9/13/78	3	46	5.1	23.5	8.7	577.7
36	9/13/78	3	53	4.4	24.0	9.2	578.2
36	9/13/78	5	4	0.4	24.6	9.7	578.7
36	9/13/78	5	13	6.8	25.6	10.7	579.8
36	9/13/78	5	16	25.6	26.9	12.0	581.1
36	9/13/78	5	21	18.6	28.4	13.6	582.6
36	9/13/78	5	23	15.3	28.9	14.1	583.1
36	9/13/78	5	30	4.4	29.4	14.6	583.6
36	9/13/78	5	40	3.1	29.9	15.1	584.1
36	9/13/78	5	50	7.7	31.2	16.4	585.4
36	9/13/78	6	0	4.6	32.0	17.1	586.2
36	9/13/78	6	11	4.2	32.7	17.9	586.9
36	9/13/78	6	44	5.6	35.8	21.0	590.0
36	9/13/78	21	25	0.0	0.0	21.0	590.0
36	9/13/78	21	29	15.4	1.0	22.0	591.0
36	9/13/78	21	32	10.3	1.5	22.5	591.5
36	9/13/78	21	35	30.9	3.1	24.1	593.1
36	9/13/78	21	39	11.6	3.9	24.8	593.9
36	9/13/78	21	41	123.6	8.0	29.0	598.0
36	9/13/78	21	43	30.9	9.0	30.0	599.0
36	9/13/78	21	45	7.7	9.3	30.2	599.3
36	9/13/78	21	51	5.1	9.8	30.8	599.8
36	9/13/78	21	57	12.9	11.1	32.0	601.1
36	9/13/78	22	8	1.4	11.3	32.3	601.3
36	9/13/78	22	12	3.9	11.6	32.6	601.6
36	9/13/78	22	16	3.9	11.8	32.8	601.8
36	9/13/78	22	18	30.9	12.9	33.8	602.9
36	9/13/78	22	21	25.7	14.2	35.1	604.2
36	9/13/78	22	25	3.9	14.4	35.4	604.4
36	9/13/78	22	27	69.5	16.7	37.7	606.7
36	9/13/78	22	30	10.3	17.2	38.2	607.2
36	9/13/78	22	35	6.2	17.8	38.7	607.8
36	9/13/78	22	42	11.0	19.0	40.0	609.0
36	9/13/78	22	48	7.7	19.8	40.8	609.8
36	9/13/78	22	50	30.9	20.8	41.8	610.8
36	9/13/78	22	55	40.2	24.2	45.2	614.2
36	9/13/78	22	57	84.9	27.0	48.0	617.0
36	9/13/78	23	2	18.5	28.6	49.5	618.6
36	9/13/78	23	3	61.8	29.6	50.6	619.6
36	9/13/78	23	10	4.4	30.1	51.1	620.1
36	9/13/78	23	23	2.4	30.6	51.6	620.6
36	9/13/78	23	38	4.1	31.7	52.6	621.7
36	9/14/78	0	47	5.4	37.8	6.2	627.8
36	9/14/78	0	54	6.6	38.6	6.9	628.6
36	9/16/78			NO DATA	0.0	0.0	628.6
36	9/16/78			NO DATA	2.5	2.5	631.1
36	9/17/78	18	40	0.0	0.0	0.0	631.1
36	9/17/78	18	50	1.5	0.3	0.3	631.4
36	9/17/78	19	38	2.3	2.1	2.1	633.2
36	9/17/78	19	53	4.1	3.1	3.1	634.2
36	9/17/78	20	7	4.4	4.1	4.1	635.3
36	9/17/78	20	21	3.3	4.9	4.9	636.0
36	9/17/78	20	30	3.4	5.4	5.4	636.6
36	9/17/78	20	38	3.9	5.9	5.9	637.1
36	9/17/78	20	56	4.3	7.2	7.2	638.4
36	9/17/78	21	13	5.5	8.8	8.8	639.9
36	9/17/78	21	25	3.9	9.5	9.5	640.7
36	9/17/78	21	38	1.2	9.8	9.8	640.9
36	9/17/78	21	58	1.5	10.3	10.3	641.5
36	9/17/78	22	7	1.7	10.6	10.6	641.7
36	9/17/78	22	34	2.9	11.9	11.9	643.0
36	9/17/78	22	50	2.9	12.6	12.6	643.8
36	9/17/78	23	0	3.1	13.2	13.2	644.3
36	9/17/78	23	40	0.4	13.4	13.4	644.6
36	9/18/78	0	5	1.2	13.9	0.5	645.1
36	9/18/78	0	23	2.6	14.7	1.3	645.8
36	9/18/78	0	38	5.2	16.0	2.6	647.1
36	9/18/78	0	44	2.6	16.2	2.8	647.4
36	9/18/78	1	0	1.9	16.8	3.4	647.9
36	9/19/78	19	2	0.0	0.0	0.0	647.9
36	9/19/78	19	5	5.1	0.3	0.3	648.2
36	9/19/78	19	7	53.6	2.0	2.0	649.9
36	9/19/78	19	9	91.8	5.1	5.1	653.0

TABLE B1-18. CONTINUED

GAGE	DATE	HOUR	MIN	PRECIP INTENSITY MM/HR	ACCUMULATED STORM MM	PRECIPITATION DAY MM	PRECIPITATION YEAR MM
36	9/19/78	19	11	45.9	6.6	6.6	654.5
36	9/19/78	19	13	30.6	7.7	7.7	655.6
36	9/19/78	19	18	18.4	9.2	9.2	657.1
36	9/19/78	19	29	1.4	9.4	9.4	657.3
36	9/19/78	19	31	23.0	10.2	10.2	658.1
36	9/19/78	19	34	51.0	12.8	12.8	660.7
36	9/19/78	19	36	99.5	16.1	16.1	664.0
36	9/19/78	19	38	53.6	17.9	17.9	665.8
36	9/19/78	19	41	5.1	18.1	18.1	666.0
36	9/19/78	21	13	0.3	18.6	18.6	666.5
36	9/19/78	21	14	107.2	20.4	20.4	668.3
36	9/19/78	21	19	49.0	24.5	24.5	672.4
36	9/19/78	21	23	7.7	25.0	25.0	672.9
36	9/19/78	21	34	1.4	25.3	25.3	673.2
36	9/19/78	21	45	1.4	25.5	25.5	673.4
36	9/19/78	22	18	0.5	25.8	25.8	673.7
36	9/19/78	22	26	1.9	26.0	26.0	673.9
36	9/19/78	22	47	0.7	26.3	26.3	674.2
36	9/19/78	22	51	7.7	26.8	26.8	674.7
36	9/19/78	23	1	1.5	27.0	27.0	675.0
36	9/19/78	23	6	3.1	27.3	27.3	675.2
36	9/19/78	23	13	2.2	27.6	27.6	675.5
36	9/19/78	23	19	2.6	27.8	27.8	675.7
36	9/19/78	23	29	1.5	28.1	28.1	676.0
36	9/19/78	23	35	2.6	28.3	28.3	676.2
36	9/19/78	23	49	1.1	28.6	28.6	676.5
36	9/19/78	23	55	5.1	29.1	29.1	677.0
36	9/20/78	0	27	0.5	29.3	0.3	677.2
36	9/20/78	0	30	10.2	29.9	0.8	677.8
36	9/20/78	0	50	1.5	30.4	1.3	678.3
36	9/20/78	0	54	49.8	33.7	4.6	681.6
36	9/20/78	0	57	15.3	34.4	5.4	682.4
36	9/20/78	1	7	7.7	35.7	6.6	683.6
36	9/20/78	1	22	3.1	36.5	7.4	684.4
36	9/20/78	1	29	6.6	37.2	8.2	685.2
36	9/20/78	1	39	1.6	37.5	8.4	685.4
36	9/20/78	5	11	0.1	37.8	8.7	685.7
36	9/20/78	5	15	3.8	38.0	8.9	685.9
36	9/20/78	5	23	1.9	38.3	9.2	686.2
36	9/20/78	5	35	5.1	39.3	10.2	687.2
36	9/20/78	6	1	1.2	39.8	10.7	687.7
36	9/20/78	6	17	1.0	40.1	11.0	688.0
36	9/20/78	6	22	3.1	40.3	11.2	688.2
36	9/20/78	6	53	2.5	41.6	12.5	689.5
36	9/20/78	7	15	4.9	43.4	14.3	691.3
36	9/20/78	7	22	4.4	43.9	14.8	691.8
36	9/20/78	8	7	0.7	44.4	15.3	692.3
36	9/20/78	8	12	3.1	44.6	15.6	692.6
36	9/20/78	8	20	1.9	44.9	15.8	692.8
36	9/20/78	8	33	5.9	46.2	17.1	694.1
36	9/20/78	8	44	9.7	48.0	18.9	695.9
36	9/20/78	8	46	15.3	48.5	19.4	696.4
36	9/20/78	8	49	10.2	49.0	19.9	696.9
36	9/20/78	8	58	3.4	49.5	20.4	697.4
36	9/20/78	9	11	7.1	51.0	21.9	698.9
36	9/20/78	9	16	3.1	51.3	22.2	699.2
36	9/20/78	9	20	3.8	51.5	22.5	699.4
36	9/20/78	9	39	0.8	51.8	22.7	699.7
36	9/20/78	9	48	6.8	52.8	23.7	700.7
36	9/20/78	10	0	3.8	53.6	24.5	701.5
36	9/20/78	10	4	23.0	55.1	26.0	703.0
36	9/20/78	10	8	7.7	55.6	26.5	703.5
36	9/20/78	10	11	5.1	55.9	26.8	703.8
36	9/20/78	10	18	2.2	56.1	27.0	704.0
36	9/20/78	12	5	0.1	56.4	27.3	704.3
36	9/20/78	13	4	0.5	56.9	27.8	704.8
36	9/20/78	15	5	0.1	57.1	28.1	705.1
36	9/29/78			NO DATA	0.0	0.0	705.1
36	9/29/78			NO DATA	3.8	3.8	708.9
36	10/ 2/78			NO DATA	0.0	0.0	708.9
36	10/ 2/78			NO DATA	15.7	15.7	724.6
36	10/ 3/78			NO DATA	0.0	0.0	724.6
36	10/ 3/78			NO DATA	1.0	1.0	725.6
36	10/ 9/78			NO DATA	0.0	0.0	725.6
36	10/ 9/78			NO DATA	5.1	5.1	730.8
36	10/ 9/78	13	0	0.0	5.1	5.1	730.8
36	10/ 9/78	13	56	0.3	5.4	5.4	731.0
36	10/ 9/78	15	25	0.3	5.9	5.9	731.5
36	10/ 9/78	15	45	1.5	6.3	6.3	732.0
36	10/ 9/78	17	0	0.4	6.8	6.8	732.5
36	10/ 9/78	17	10	4.4	7.6	7.6	733.2
36	10/ 9/78	17	23	6.8	9.0	9.0	734.7
36	10/ 9/78	17	39	0.9	9.3	9.3	734.9
36	10/ 9/78	17	44	8.8	10.0	10.0	735.6
36	10/ 9/78	17	58	1.0	10.2	10.2	735.9
36	10/ 9/78	18	4	7.3	11.0	11.0	736.6
36	10/ 9/78	18	50	1.6	12.2	12.2	737.8
36	10/22/78			NO DATA	0.0	0.0	737.8
36	10/22/78			NO DATA	4.3	4.3	742.1
36	11/ 5/78			NO DATA	0.0	0.0	742.1
36	11/ 5/78			NO DATA	1.5	1.5	743.7
36	11/12/78	3	45	0.0	4.9	4.9	748.6
36	11/12/78	4	30	1.0	5.7	5.7	749.4
36	11/12/78	5	0	1.0	6.2	6.2	749.9
36	11/12/78	5	10	1.6	6.5	6.5	750.2
36	11/12/78	5	40	0.5	6.8	6.8	750.4
36	11/12/78	6	0	0.0	6.8	6.8	750.4

TABLE B1-18. CONTINUED

GAGE	DATE	HOUR	MIN	PRECIP INTENSITY MM/HR	ACCUMULATED STORM MM	PRECIPITATION DAY MM	PRECIPITATION YEAR MM
36	11/12/78	6	14	2.2	7.3	7.3	750.9
36	11/12/78	6	30	2.0	7.8	7.8	751.5
36	11/12/78	6	47	1.8	8.3	8.3	752.0
36	11/12/78	7	15	1.7	9.1	9.1	752.8
36	11/12/78	7	24	8.7	10.4	10.4	754.1
36	11/12/78	8	0	0.9	10.9	10.9	754.6
36	11/12/78	8	10	4.7	11.7	11.7	755.4
36	11/12/78	8	17	2.2	12.0	12.0	755.6
36	11/12/78	8	22	6.2	12.5	12.5	756.2
36	11/12/78	8	33	7.1	13.8	13.8	757.5
36	11/12/78	8	40	11.2	15.1	15.1	758.8
36	11/12/78	8	49	5.2	15.9	15.9	759.5
36	11/12/78	9	19	1.0	16.4	16.4	760.1
36	11/12/78	10	45	0.4	16.9	16.9	760.6
36	11/12/78	10	49	11.7	17.7	17.7	761.4
36	11/12/78	11	2	2.4	18.2	18.2	761.9
36	11/12/78	11	8	7.8	19.0	19.0	762.7
36	11/12/78	11	11	15.6	19.8	19.8	763.4
36	11/12/78	11	20	6.9	20.8	20.8	764.5
36	11/12/78	11	32	1.3	21.1	21.1	764.7
36	11/12/78	11	36	23.4	22.6	22.6	766.3
36	11/12/78	11	43	6.7	23.4	23.4	767.1
36	11/12/78	11	54	21.3	27.3	27.3	771.0
36	11/12/78	12	4	6.2	28.4	28.4	772.0
36	11/12/78	12	15	2.8	28.9	28.9	772.6
36	11/12/78	12	17	15.6	29.4	29.4	773.1
36	11/12/78	12	28	2.8	29.9	29.9	773.6
36	11/12/78	13	17	1.0	30.7	30.7	774.4
36	11/12/78	13	36	2.5	31.5	31.5	775.2
36	11/12/78	13	55	0.8	31.8	31.8	775.4
36	11/12/78	14	0	9.4	32.5	32.5	776.2
36	11/12/78	14	14	5.6	33.8	33.8	777.5
36	11/12/78	14	17	20.8	34.9	34.9	778.5
36	11/12/78	14	32	6.2	36.4	36.4	780.1
36	11/12/78	14	38	7.8	37.2	37.2	780.9
36	11/12/78	14	40	39.0	38.5	38.5	782.2
36	11/12/78	15	2	2.1	39.3	39.3	783.0
36	11/12/78	15	13	5.7	40.3	40.3	784.0
36	11/12/78	16	21	0.5	40.9	40.9	784.5
36	11/12/78	16	46	0.6	41.1	41.1	784.8
36	11/12/78	17	28	0.7	41.6	41.6	785.3
36	11/12/78	18	0	0.5	41.9	41.9	785.6
36	11/16/78	20	20	0.0	0.0	0.0	785.6
36	11/16/78	20	44	1.3	0.5	0.5	786.1
36	11/16/78	21	24	1.1	1.3	1.3	786.8
36	11/16/78	21	40	2.8	2.0	2.0	787.6
36	11/16/78	22	0	3.8	3.3	3.3	788.8
36	11/16/78	22	30	4.5	5.5	5.5	791.1
36	11/16/78	22	42	2.5	6.0	6.0	791.6
36	11/16/78	22	55	2.3	6.5	6.5	792.1
36	11/16/78	23	5	4.5	7.3	7.3	792.8
36	11/16/78	23	11	2.5	7.5	7.5	793.1
36	11/16/78	23	23	5.0	8.5	8.5	794.1
36	11/16/78	23	54	4.9	11.0	11.0	796.6
36	11/16/78	24	0	7.5	11.8	11.8	797.3
36	11/17/78	0	23	2.0	12.5	0.8	798.1
36	11/17/78	0	52	2.1	13.5	1.8	799.1
36	11/17/78	1	0	5.6	14.3	2.5	799.9
36	11/17/78	1	17	4.4	15.5	3.8	801.1
36	11/17/78	1	22	15.0	16.8	5.0	802.4
36	11/17/78	1	28	12.5	18.0	6.3	803.6
36	11/17/78	1	44	4.7	19.3	7.5	804.9
36	11/17/78	1	51	4.3	19.8	8.0	805.4
36	11/17/78	2	3	3.8	20.6	8.8	806.1
36	11/17/78	2	13	4.5	21.3	9.5	806.9
36	11/17/78	2	16	5.0	21.6	9.8	807.1
36	11/17/78	2	27	5.5	22.6	10.8	808.1
36	11/17/78	2	40	3.5	23.3	11.5	808.9
36	11/17/78	2	54	2.1	23.8	12.0	809.4
36	11/17/78	3	0	2.5	24.1	12.3	809.6
36	11/17/78	3	20	1.5	24.6	12.8	810.1
36	11/17/78	3	33	2.3	25.1	13.3	810.6
36	11/17/78	3	43	1.5	25.3	13.5	810.9
36	11/17/78	4	0	3.5	26.3	14.5	811.9
36	11/17/78	4	10	6.0	27.3	15.5	812.9
36	11/17/78	4	22	5.0	28.3	16.5	813.9
36	11/17/78	5	0	1.2	29.1	17.3	814.6
36	11/17/78	5	10	3.0	29.6	17.8	815.1
36	11/17/78	5	24	2.1	30.1	18.3	815.6
36	11/17/78	5	30	7.5	30.8	19.0	816.4
36	11/17/78	5	34	7.5	31.3	19.6	816.9
36	11/17/78	5	50	1.9	31.8	20.1	817.4
36	11/17/78	6	20	1.0	32.3	20.6	817.9
36	11/17/78	6	40	2.3	33.1	21.3	818.6
36	11/17/78	10	20	0.0	33.1	21.3	818.6
36	11/17/78	11	20	0.5	33.6	21.8	819.2
36	11/17/78	11	40	1.5	34.1	22.3	819.7
36	11/17/78	11	55	1.0	34.3	22.6	819.9
36	11/17/78	13	0	1.2	35.6	23.8	821.2
36	11/17/78	13	30	0.5	35.8	24.1	821.4
36	11/17/78	14	0	1.0	36.3	24.6	821.9
36	11/17/78	14	30	1.0	36.8	25.1	822.4
36	11/17/78	15	6	0.4	37.1	25.3	822.7
36	11/17/78	16	10	0.9	38.1	26.3	823.7
36	11/22/78			SNOW	0.0	0.0	823.7
36	11/22/78			SNOW	7.1	7.1	830.8
36	11/26/78			SNOW	0.0	0.0	830.8
36	11/26/78			SNOW	1.0	1.0	831.8
36	11/27/78			SNOW	0.0	0.0	831.8
36	11/27/78			SNOW	1.0	1.0	832.8

TABLE B1-18. CONCLUDED

GAGE	DATE	HOUR MIN	PRECIP INTENSITY MM/HR	ACCUMULATED PRECIPITATION STORM MM	DAY MM	YEAR MM
36	11/29/78		SNOW	0.0	0.0	832.8
36	11/29/78		SNOW	6.9	6.9	839.7
36	12/ 1/78		SNOW	0.0	0.0	839.7
36	12/ 1/78		SNOW	4.1	4.1	843.7
36	12/ 2/78		SNOW	0.0	0.0	843.7
36	12/ 2/78		SNOW	8.4	8.4	852.1
36	12/ 5/78		SNOW	0.0	0.0	852.1
36	12/ 5/78		SNOW	2.3	2.3	854.4
36	12/23/78		SNOW	0.0	0.0	854.4
36	12/23/78		SNOW	1.8	1.8	856.2
36	12/24/78		SNOW	0.0	0.0	856.2
36	12/24/78		SNOW	0.8	0.8	856.9
36	12/29/78		SNOW	0.0	0.0	856.9
36	12/29/78		SNOW	3.6	3.6	860.5
36	12/31/78		SNOW	0.0	0.0	860.5
36	12/31/78		SNOW	7.9	7.9	868.4

GAGE	DATE	HOUR MIN	PRECIP INTENSITY MM/HR	ACCUMULATED PRECIPITATION STORM MM	DAY MM	YEAR MM

TABLE B2-1. WEATHER DATA AT ISU WEATHER STATION NEAR FOUR MILE CREEK WATERSHED

BEGINNING DATE	ENDING DATE	MAXIMUM TEMPERATURE DEGREES C	MINIMUM TEMPERATURE DEGREES C	SOLAR RADIATION LANGLEYS	TOTAL WIND KILOMETERS	RELATIVE HUMIDITY PERCENT	PAN EVAPORATION MM	PRECIPITATION MM	NET EVAPORATION MM
6/24/76	6/25/76			689	195.7		8.1	0.8	8.9
6/25/76	6/26/76			610	161.6		7.9	1.0	8.9
6/26/76	6/27/76			483	119.3		2.0		2.0
6/27/76	6/28/76			461	181.9		8.1		8.1
6/28/76	6/29/76			579	137.8		0.3	6.9	7.2
6/29/76	6/30/76			708	17.5		6.6		6.6
6/30/76	7/ 1/76			750	163.3		6.9		6.9
7/ 1/76	7/ 2/76			684	31.7		3.3		3.3
7/ 2/76	7/ 3/76			672	91.7		10.4		10.4
7/ 3/76	7/ 4/76			405	40.2		6.6		6.6
7/ 4/76	7/ 5/76			680	37.8		7.1		7.1
7/ 5/76	7/ 6/76			630	108.3		9.9		9.9
7/ 6/76	7/ 7/76			648	133.9		7.4		7.4
7/ 7/76	7/ 8/76			609	122.5		10.7		10.7
7/ 8/76	7/ 9/76			618	185.9		8.4		8.4
7/ 9/76	7/10/76			696	191.0		11.7		11.7
7/10/76	7/11/76			633	250.1		8.6		8.6
7/11/76	7/12/76			695	98.0		9.7		9.7
7/12/76	7/13/76	34.4		660	100.4		9.4		9.4
7/13/76	7/14/76	32.8	23.3	633	173.8		10.7		10.7
7/14/76	7/15/76	30.6	25.6	584	134.4		6.9		6.9
7/15/76	7/16/76	25.0	10.6	697	212.4		8.1	0.5	8.6
7/16/76	7/17/76	29.4	9.4	714	26.1		8.4		8.4
7/17/76	7/18/76	36.1	16.1	673	139.5		8.4		8.4
7/18/76	7/19/76	27.2	19.4	109	148.7	62	4.1		4.1
7/19/76	7/20/76	31.1	21.1	396	121.3	98	1.5	2.3	3.8
7/20/76	7/21/76	28.3	18.3	403	133.6	78	2.5	3.0	5.5
7/21/76	7/22/76	27.8	17.2	222	78.7	82	3.0		3.0
7/22/76	7/23/76	35.0	17.2	593	12.1	61	5.3		5.3
7/23/76	7/24/76	31.7	13.3	739	155.9	48	9.7		9.7
7/24/76	7/25/76	34.4	15.0	615	67.3	61	7.9		7.9
7/25/76	7/26/76	30.0	16.1	373	93.5	66	4.1	0.8	4.9
7/26/76	7/27/76	31.7	17.8	512	61.2	78	5.8		5.8
7/27/76	7/28/76	29.4	18.3	349	85.1	68	-20.6	27.4	6.8
7/28/76	7/29/76	26.7	15.0	469	39.8	68	4.8		4.8
7/29/76	7/30/76	32.2	18.3	606	90.8	66	7.1	3.6	10.7
7/30/76	7/31/76	31.1	16.1	597	124.4	61	3.8		3.8
7/31/76	8/ 1/76	25.6	10.6	660	74.8	51	6.6		6.6
8/ 1/76	8/ 2/76	27.2	10.0	661	43.0	59	6.1		6.1
8/ 2/76	8/ 3/76	27.8	11.1	580	120.5	44	6.1		6.1
8/ 3/76	8/ 4/76	28.3	14.4	426	174.9	61	7.1		7.1
8/ 4/76	8/ 5/76	28.9	15.0	555	146.0	72	6.1		6.1
8/ 5/76	8/ 6/76	25.0	14.4	620	170.6	50	8.1		8.1
8/ 6/76	8/ 7/76	31.7	7.2	631	44.9	43	5.3		5.3
8/ 7/76	8/ 8/76	31.1	6.7	648	76.9	54	7.4		7.4
8/ 8/76	8/ 9/76	28.9	11.1	581	157.9	50	8.1		8.1

THE INSTRUMENTS WERE READ AT APPROXIMATELY 6:00 P.M. EACH DAY. THE MAXIMUM AND MINIMUM TEMPERATURES WERE ADJUSTED FOR EACH CALENDAR DAY AND ARE ASSOCIATED WITH THE ENDING DATE.

TABLE B2-1. WEATHER DATA AT ISU WEATHER STATION NEAR FOUR MILE CREEK WATERSHED

BEGINNING DATE	ENDING DATE	MAXIMUM TEMPERATURE DEGREES C	MINIMUM TEMPERATURE DEGREES C	SOLAR RADIATION LANGLEYS	TOTAL WIND KILOMETERS	RELATIVE HUMIDITY PERCENT	PAN EVAPORATION MM	PRECIPITATION MM	NET EVAPORATION MM
8/ 9/76	8/10/76	33.3	17.8	546	173.2	62	7.6		7.6
8/10/76	8/11/76	30.0	17.8	415	151.8	100	2.8	4.5	7.3
8/11/76	8/12/76	31.1	16.1	458	40.1	75	3.3	0.8	4.1
8/12/76	8/13/76	32.2	13.9	447	141.5	100	2.8	0.8	3.6
8/13/76	8/14/76	23.9	14.4	252	58.4	48	3.8		3.8
8/14/76	8/15/76	25.0	10.6	631	98.8	55	6.1		6.1
8/15/76	8/16/76	24.4	7.8	278	160.8	71	3.8		3.8
8/16/76	8/17/76	27.2	14.4	378	85.3	74	1.3	2.0	3.3
8/17/76	8/18/76	32.2	17.2	587	158.0	73	7.1		7.1
8/18/76	8/19/76	31.1	16.7	581	139.2	50	7.4		7.4
8/19/76	8/20/76	27.8	13.3	563	76.6	48	6.9		6.9
8/20/76	8/21/76	32.2	15.6	580	124.2	51	7.4		7.4
8/21/76	8/22/76	35.6	15.6	586	66.6	61	6.3		6.3
8/22/76	8/23/76	32.8	17.8	348	41.0	62	5.3		5.3
8/23/76	8/24/76	31.7	16.1	426	29.8	44	4.8		4.8
8/24/76	8/25/76	29.4	15.0	420	46.0		5.1		5.1
8/25/76	8/26/76	32.8	15.6	507	111.5		6.9		6.9
8/26/76	8/27/76	35.0	20.6	521	193.1		8.9		8.9
8/27/76	8/28/76	28.3	8.9	573	123.0		8.9		8.9
8/28/76	8/29/76	28.9	6.1	549	24.0		5.3		5.3
8/29/76	8/30/76	32.2	12.8	557	181.9		8.9		8.9
8/30/76	8/31/76	31.7	12.8	544	182.2		7.4		7.4
8/31/76	9/ 1/76	31.7	15.0	529	113.8		9.4		9.4
9/ 1/76	9/ 2/76	28.3	7.2	532	126.5		5.8		5.8
9/ 2/76	9/ 3/76	32.2	16.7	503	120.2		8.1		8.1
9/ 3/76	9/ 4/76	31.1	7.8	546	160.3		7.4		7.4
9/ 4/76	9/ 5/76	29.4	8.9	544	90.6		6.9		6.9
9/ 5/76	9/ 6/76	29.4	14.4	448	174.8		7.6		7.6
9/ 6/76	9/ 7/76	32.8	15.0	501	178.2		7.9		7.9
9/ 7/76	9/ 8/76	30.6	11.7	420	114.6		7.4		7.4
9/ 8/76	9/ 9/76	21.1	7.8	549	164.2		4.8		4.8
9/ 9/76	9/10/76	30.0	2.2	563	112.5		6.9		6.9
9/10/76	9/11/76	29.4	9.4	577	153.9		7.9		7.9
9/11/76	9/12/76	30.6	11.1	539	276.3		10.2		10.2
9/12/76	9/13/76	28.3	13.9	341	85.8		8.4		8.4
9/13/76	9/14/76	23.3	14.4	459	97.2		4.1		4.1
9/14/76	9/15/76	24.4	5.6	393	121.2		4.1		4.1
9/15/76	9/16/76	23.9	2.2	506	42.2		4.1		4.1
9/16/76	9/17/76	25.6	2.8	435	38.0		3.6		3.6
9/17/76	9/18/76	28.9	5.0	458	44.1		5.1		5.1
9/18/76	9/19/76	25.0	12.8	263	56.0		-8.1	11.7	3.6
9/19/76	9/20/76	20.0	19.0	458	180.6		6.3		6.3
9/20/76	9/21/76	19.4	5.0	499	129.1		5.1		5.1
9/21/76	9/22/76	28.9	2.2	466	81.3		4.3		4.3
9/22/76	9/23/76	16.7	3.9	439	103.2		5.6		5.6
9/23/76	9/24/76	22.8	3.3	305	44.4		2.0		2.0

THE INSTRUMENTS WERE READ AT APPROXIMATELY 6:00 P.M. EACH DAY. THE MAXIMUM AND MINIMUM TEMPERATURES WERE ADJUSTED FOR EACH CALENDAR DAY AND ARE ASSOCIATED WITH THE ENDING DATE.

TABLE B2-1. WEATHER DATA AT ISU WEATHER STATION NEAR FOUR MILE CREEK WATERSHED

BEGINNING DATE	ENDING DATE	MAXIMUM TEMPERATURE DEGREES C	MINIMUM TEMPERATURE DEGREES C	SOLAR RADIATION LANGLEYS	TOTAL WIND KILOMETERS	RELATIVE HUMIDITY PERCENT	PAN EVAPORATION MM	PRECIPITATION MM	NET EVAPORATION MM
9/24/76	9/25/76	17.2	7.8	142	71.3		3.6		3.6
9/25/76	9/26/76	18.9	8.9	209	76.1		1.5		1.5
9/26/76	9/27/76	15.6	8.9	100	61.6		-2.5		-2.5
9/27/76	9/28/76	15.6	3.9	193	67.1		1.5	5.3	6.8
9/28/76	9/29/76	20.0	5.6	392	101.2		2.8		2.8
9/29/76	9/30/76	27.2	6.1	456	131.5		5.3		5.3
9/30/76	10/ 1/76	33.9	13.3	432	98.3		5.1		5.1
10/ 1/76	10/ 2/76	31.1	12.8	424	63.7		5.8		5.8
10/ 2/76	10/ 3/76	30.6	11.7	348	117.3		6.6		6.6
10/ 3/76	10/ 4/76	16.1	13.3	356	100.9	100	-9.9	10.4	0.5
10/ 4/76	10/ 5/76	14.4	9.4	151	86.6	63	0.3	5.3	5.6
10/ 5/76	10/ 6/76	13.3	-0.6	382	57.8	60	0.3		0.3
10/ 6/76	10/ 7/76	12.2	2.2	382	52.8	48	4.1		4.1
10/ 7/76	10/ 8/76	15.0	-2.8	291	100.3	59	0.3		0.3
10/ 8/76	10/ 9/76	16.7	1.1	405	97.0	70	4.3		4.3
10/ 9/76	10/10/76	22.2	1.7	387	50.1	69	3.8		3.8
10/10/76	10/11/76	26.1	8.3	338	174.0	49	5.1		5.1
10/11/76	10/12/76	25.6	12.8	298	113.8	78	2.5		2.5
10/12/76	10/13/76	21.1	8.3	377	140.7	66	7.6		7.6
10/13/76	10/14/76	27.2	7.8	336	240.6	34	3.6		3.6
10/14/76	10/15/76	11.1	7.8	336	347.1	64	10.7		10.7
10/15/76	10/16/76	5.6	3.3	162	106.5	32	1.5		1.5
10/16/76	10/17/76	11.1	-6.1	378	75.0	61	2.8		2.8
10/17/76	10/18/76	7.2	-7.2	71	83.0	100	-0.5	2.5	2.0
10/18/76	10/19/76	5.6	0.6	58	109.1	87	-6.1	3.8	-2.3
10/19/76	10/20/76	10.0	-1.7	304	152.4	76	3.6		3.6
10/20/76	10/21/76	4.4	-1.7	250	309.5	70	2.8		2.8
10/21/76	10/22/76	11.1	-6.7	349	53.4	50	1.8		1.8
10/22/76	10/23/76	8.9	-2.8	100	96.9	100	-1.0		-1.0
10/23/76	10/24/76	6.7	2.8		157.2	84	-6.6	6.9	0.3
10/24/76	10/25/76	8.3	-2.2		65.7	82	1.3		1.3
10/25/76	10/26/76	5.6	-2.8		105.7	73	1.5		1.5
10/26/76	10/27/76	7.2	-1.7		76.4	65	1.8		1.8
10/27/76	10/28/76	10.6	-3.3		222.4	74	2.3		2.3
10/28/76	10/29/76	12.8	0.6		261.4	74	2.0		2.0
10/29/76	10/30/76	7.8	5.6		141.9	100	-9.1	8.9	-0.2
10/30/76	10/31/76	13.3	0.0		46.7	73	1.0		1.0
12/22/76	1/ 6/77			2522				2.0	
1/ 6/77	1/21/77			2653				3.0	
1/21/77	2/ 8/77			4014				3.0	
2/ 8/77	2/11/77			572					
2/11/77	2/17/77			1568					
2/17/77	2/24/77			1695				12.2	
2/24/77	3/ 3/77			1572				4.1	
3/ 3/77	3/ 8/77			1799					
3/ 8/77	3/15/77			1748				52.6	

THE INSTRUMENTS WERE READ AT APPROXIMATELY 6:00 P.M. EACH DAY. THE MAXIMUM AND MINIMUM TEMPERATURES WERE ADJUSTED FOR EACH CALENDAR DAY AND ARE ASSOCIATED WITH THE ENDING DATE.

TABLE B2-1. WEATHER DATA AT ISU WEATHER STATION NEAR FOUR MILE CREEK WATERSHED

BEGINNING DATE	ENDING DATE	MAXIMUM TEMPERATURE DEGREES C	MINIMUM TEMPERATURE DEGREES C	SOLAR RADIATION LANGLEYS	TOTAL WIND KILOMETERS	RELATIVE HUMIDITY PERCENT	PAN EVAPORATION MM	PRECIPITATION MM	NET EVAPORATION MM
3/15/77	3/18/77			745				11.4	
3/18/77	3/22/77			996				5.6	
3/22/77	3/29/77			2156				22.8	
3/29/77	4/ 6/77			2114				31.7	
4/ 6/77	4/13/77			3817					
4/13/77	4/14/77	22.8	15.0	277	94.3		-6.3	6.3	-0.0
4/14/77	4/15/77	27.8	11.1	421	136.3		4.3		4.3
4/15/77	4/16/77	30.0	11.7	497	104.8		2.8		2.8
4/16/77	4/17/77	28.3	13.3	414	100.9		9.1		9.1
4/17/77	4/18/77	30.6	11.7	460	119.9	52	7.4		7.4
4/18/77	4/19/77	22.8	13.3	355	137.0	95	-7.1	8.9	1.8
4/19/77	4/20/77	24.4	11.7	407	87.1	75	6.1		6.1
4/20/77	4/21/77	15.6	7.8	202	160.5	76	-14.2	18.0	3.8
4/21/77	4/22/77	18.3	6.7	567	171.6	48	5.3		5.3
4/22/77	4/23/77	23.9	6.1	552	37.3	40	3.6		3.6
4/23/77	4/24/77	21.7	3.9	615	132.1	42	9.1		9.1
4/24/77	4/25/77	18.3	1.1	616	70.5	38	2.0		2.0
4/25/77	4/26/77	25.0	4.4	574	130.4	35	7.9		7.9
4/26/77	4/27/77	30.6	9.4	576	308.0	34	9.9		9.9
4/27/77	4/28/77	13.9	4.4	433	207.6	55	0.5	5.8	6.3
4/28/77	4/29/77	18.3	0.6	583	263.1	40	5.6		5.6
4/29/77	4/30/77	22.2	6.1	607	40.6	39	7.1		7.1
4/30/77	5/ 1/77	26.1	11.1	355	126.3	42	4.1		4.1
5/ 1/77	5/ 2/77	25.0	10.0	536	109.6	56	6.3		6.3
5/ 2/77	5/ 3/77	17.8	11.7	178	215.2	88	4.1	0.1	4.2
5/ 3/77	5/ 4/77	21.1	13.9	170	115.6	92	-11.7	15.7	4.0
5/ 4/77	5/ 5/77	23.9	11.7	615	219.5	48	0.3	2.7	3.0
5/ 5/77	5/ 6/77	22.2	11.7	240	44.1	68	2.5		2.5
5/ 6/77	5/ 7/77	21.7	7.2	600	112.2	50	4.6		4.6
5/ 7/77	5/ 8/77	25.6	8.9	617	39.3	31	6.9		6.9
5/ 8/77	5/ 9/77	19.4	2.2	695	123.1	35	7.6		7.6
5/ 9/77	5/10/77	23.9	3.9	684	92.7	35	7.9		7.9
5/10/77	5/11/77	23.3	7.2	648	104.3	38	7.6		7.6
5/11/77	5/12/77	27.8	10.6	619	127.1	35	7.4		7.4
5/12/77	5/13/77	30.0	12.8	669	189.7	31	10.7		10.7
5/13/77	5/14/77	31.1	15.0	591	181.5	45	7.9		7.9
5/14/77	5/15/77	31.7	17.2	530	213.6	44	10.4	2.1	12.5
5/15/77	5/16/77	30.0	17.8	599	240.9	40	6.1	5.0	11.1
5/16/77	5/17/77	29.4	17.2	495	158.2	51	5.8	1.0	6.8
5/17/77	5/18/77	32.2	16.7	581	303.7	40	6.3		6.3
5/18/77	5/19/77	32.2	17.2	592	222.6	39	8.9		8.9
5/19/77	5/20/77	22.2	17.2	193	85.6	88	3.0	1.3	4.3
5/20/77	5/21/77	27.2	10.6	377	121.0	95	-3.0	11.2	8.2
5/21/77	5/22/77	20.6	15.6	286	349.5	87	4.3	1.0	5.3
5/22/77	5/23/77	29.4	12.8	521	205.4	47	3.0	0.3	3.3
5/23/77	5/24/77	31.1	13.9	638	31.9	45	7.9		7.9

THE INSTRUMENTS WERE READ AT APPROXIMATELY 6:00 P.M. EACH DAY. THE MAXIMUM AND MINIMUM TEMPERATURES WERE ADJUSTED FOR EACH CALENDAR DAY AND ARE ASSOCIATED WITH THE ENDING DATE.

TABLE B2-1. WEATHER DATA AT ISU WEATHER STATION NEAR FOUR MILE CREEK WATERSHED

BEGINNING DATE	ENDING DATE	MAXIMUM TEMPERATURE DEGREES C	MINIMUM TEMPERATURE DEGREES C	SOLAR RADIATION LANGLEYS	TOTAL WIND KILOMETERS	RELATIVE HUMIDITY PERCENT	PAN EVAPORATION MM	PRECIPITATION MM	NET EVAPORATION MM
5/24/77	5/25/77	32.2	16.1	618	161.7	38	7.6		7.6
5/25/77	5/26/77	32.2	18.3	610	119.4	62	2.5	7.6	10.1
5/26/77	5/27/77	31.1	16.1	650	72.4	34	8.6		8.6
5/27/77	5/28/77	29.4	16.7	532	83.4	45	5.3		5.3
5/28/77	5/29/77	27.8	17.2	314	67.4	74	3.0		3.0
5/29/77	5/30/77	28.9	13.9	443	33.0	54	6.3		6.3
5/30/77	5/31/77	23.3	16.1	466	289.5	72	5.8		5.8
5/31/77	6/ 1/77	26.7	13.3	540	235.1	34	7.9		7.9
6/ 1/77	6/ 2/77	25.6	9.4	639	85.0	37	5.8		5.8
6/ 2/77	6/ 3/77	28.3	10.6	585	153.2	35	10.4		10.4
6/ 3/77	6/ 4/77	32.2	18.3	610	286.5	41	10.2		10.2
6/ 4/77	6/ 5/77	35.6	21.7	617	165.6	37	8.6		8.6
6/ 5/77	6/ 6/77	22.8	15.6	659	138.4	39	10.7		10.7
6/ 6/77	6/ 7/77	28.3	10.6	589	140.2	32	9.9		9.9
6/ 7/77	6/ 8/77	25.6	14.4	434	179.6	45	0.3	3.8	4.1
6/ 8/77	6/ 9/77	23.3	5.6	707	94.1	37	8.9		8.9
6/ 9/77	6/10/77	31.1	13.3	614	297.9	40	10.4		10.4
6/10/77	6/11/77	32.2	18.3	619	220.3	69	4.6	7.6	12.2
6/11/77	6/12/77	23.3	16.7	548	163.3	48	7.1		7.1
6/12/77	6/13/77	25.6	11.1	431	73.1	48	4.8		4.8
6/13/77	6/14/77	28.3	10.6	635	117.6	37	5.8		5.8
6/14/77	6/15/77	30.0	12.8	668	6.4	40	9.1		9.1
6/15/77	6/16/77	30.0	18.9	330	156.6	45	5.3		5.3
6/16/77	6/17/77	28.9	18.3	381	26.7	69	-20.8	31.7	10.9
6/17/77	6/18/77	25.6	16.1	732	204.2	44	9.1		9.1
6/18/77	6/19/77	27.2	13.3	749	151.3	37	10.4		10.4
6/19/77	6/20/77	25.6	13.3	787	97.8	47	9.7		9.7
6/20/77	6/21/77	22.2	11.7	248	30.6	87	2.8		2.8
6/21/77	6/22/77	28.3	13.3	634	133.4	56	7.1		7.1
6/22/77	6/23/77	29.4	16.7	419	32.8	78	-5.3	10.7	5.4
6/23/77	6/24/77	32.2	18.3	601	149.5	61	4.8	2.5	7.3
6/24/77	6/25/77	31.1	15.6	625	59.9	42	4.1		4.1
6/25/77	6/26/77	33.3	16.7	725	84.5	39	9.1		9.1
6/26/77	6/27/77	34.4	17.2	709	78.4	41	9.9		9.9
6/27/77	6/28/77	25.6	19.4	446	181.9	48	7.9		7.9
6/28/77	6/29/77	30.6	12.8	763	155.0	39	11.2		11.2
6/29/77	6/30/77	25.0	16.7	520	217.9	43	6.9	1.3	8.2
6/30/77	7/ 1/77	27.2	12.8	765	260.6	34	11.7		11.7
7/ 1/77	7/ 2/77	30.6	13.9	551	138.9	37	8.1		8.1
7/ 2/77	7/ 3/77	34.4	19.4	577	242.7	49	-2.0	11.4	9.4
7/ 3/77	7/ 4/77	37.2	22.8	674	192.5	35	10.7		10.7
7/ 4/77	7/ 5/77	36.7	19.4	743	243.0	35	13.0		13.0
7/ 5/77	7/ 6/77	37.8	24.4	631	217.4	44	11.4		11.4
7/ 6/77	7/ 7/77	31.1	19.4	540	79.5	88	-29.2	35.1	5.9
7/ 7/77	7/ 8/77	27.8	20.6	577	68.1	43	7.1		7.1
7/ 8/77	7/ 9/77	27.8	12.2	691	31.1	43	6.9		6.9

THE INSTRUMENTS WERE READ AT APPROXIMATELY 6:00 P.M. EACH DAY. THE MAXIMUM AND MINIMUM TEMPERATURES WERE ADJUSTED FOR EACH CALENDAR DAY AND ARE ASSOCIATED WITH THE ENDING DATE.

TABLE 82-1. WEATHER DATA AT ISU WEATHER STATION NEAR FOUR MILE CREEK WATERSHED

BEGINNING DATE	ENDING DATE	MAXIMUM TEMPERATURE DEGREES C	MINIMUM TEMPERATURE DEGREES C	SOLAR RADIATION LANGLEYS	TOTAL WIND KILOMETERS	RELATIVE HUMIDITY PERCENT	PAN EVAPORATION MM	PRECIPITATION MM	NET EVAPORATION MM
7/ 9/77	7/10/77	28.9	12.2	590	15.8	51	7.6		7.6
7/10/77	7/11/77	31.7	17.2	548	20.9	49	1.8	4.8	6.6
7/11/77	7/12/77	28.9	17.8	715	80.8	43	9.1		9.1
7/12/77	7/13/77	36.1	14.4	626	73.4	50	8.1		8.1
7/13/77	7/14/77	37.2	22.2	693	200.2	41	13.5		13.5
7/14/77	7/15/77	36.7	18.9	615	73.7	53	6.3		6.3
7/15/77	7/16/77	32.8	20.0	496	149.0	64	-6.9	12.7	5.8
7/16/77	7/17/77	25.0	19.4	206	131.0	87	-0.5	5.6	5.1
7/17/77	7/18/77	31.1	22.2	348	180.4	70	-8.1	4.1	-4.0
7/18/77	7/19/77	35.0	22.2	649	198.3	44	7.6	10.6	18.2
7/19/77	7/20/77	34.4	22.2	611	142.3	54	7.6		7.6
7/20/77	7/21/77	28.9	20.6	408	93.3	53	5.6	4.1	9.7
7/21/77	7/22/77	30.6	13.9	674	50.9	35	1.5		1.5
7/22/77	7/23/77	31.7	16.1	655	78.9	51	9.7		9.7
7/23/77	7/24/77	30.6	21.7	371	94.5	68	4.3	1.0	5.3
7/24/77	7/25/77	27.2	18.9	667	118.4	45	8.1		8.1
7/25/77	7/26/77	27.2	11.7	582	61.3	42	6.1		6.1
7/26/77	7/27/77	27.8	10.6	664	97.8	51	8.6		8.6
7/27/77	7/28/77	31.7	13.9	424	113.9	92	-11.9	37.5	25.6
7/28/77	7/29/77	31.7	17.2	626	54.4	61	-12.4	1.9	-10.5
7/29/77	7/30/77	33.9	18.3	557	114.4	38	9.1		9.1
7/30/77	7/31/77	24.4	15.0	594	188.0	50	6.9	1.3	8.2
7/31/77	8/ 1/77	30.0	11.7	651	93.2	38	6.6	17.3	23.9
8/ 1/77	8/ 2/77	27.2	16.1	504	134.7	60	-10.9		-10.9
8/ 2/77	8/ 3/77	31.1	15.6	597	90.6	46	7.6		7.6
8/ 3/77	8/ 4/77	27.2	17.8	257	66.1	66	5.3		5.3
8/ 4/77	8/ 5/77	24.4	16.7	172	18.7	85	-16.0	18.8	2.8
8/ 5/77	8/ 6/77	22.2	15.6	244	82.6	93	2.3		2.3
8/ 6/77	8/ 7/77	31.1	18.9	452	48.4	90	2.3		2.3
8/ 7/77	8/ 8/77	27.8	18.3		70.0	87	-24.1	24.9	0.8
8/ 8/77	8/ 9/77	27.8	19.4		70.7	80	-5.1	11.7	6.6
8/ 9/77	8/10/77	25.6	18.9		73.5	56	4.6		4.6
8/10/77	8/11/77	23.9	11.7		72.4	43	2.5		2.5
8/11/77	8/12/77	26.7	11.1		81.1	47	7.6		7.6
8/12/77	8/13/77	26.1	14.4		124.1	60	-1.3	5.1	3.8
8/13/77	8/14/77	24.4	9.4		10.1	55	4.1		4.1
8/14/77	8/15/77	26.1	10.6		56.3	93	3.6		3.6
8/15/77	8/16/77	21.7	13.9		94.0	77	-30.2	36.6	6.4
8/16/77	8/17/77	22.8	13.3		51.5	46	5.6		5.6
8/17/77	8/18/77	23.9	6.7		24.1	45	4.8		4.8
8/18/77	8/19/77	23.3	12.8		66.3	98	-3.0	6.3	3.3
8/19/77	8/20/77	23.3	11.7		60.8	69	0.8		0.8
8/20/77	8/21/77	26.1	13.3		58.7	55	-1.8	5.6	3.8
8/21/77	8/22/77	26.1	12.2		59.2	67	4.8		4.8
8/22/77	8/23/77	20.6	11.1		119.3	87	3.3		3.3
8/23/77	8/24/77	25.6	7.8		35.6	45	3.3		3.3

THE INSTRUMENTS WERE READ AT APPROXIMATELY 6:00 P.M. EACH DAY. THE MAXIMUM AND MINIMUM TEMPERATURES WERE ADJUSTED FOR EACH CALENDAR DAY AND ARE ASSOCIATED WITH THE ENDING DATE.

TABLE B2-1. WEATHER DATA AT ISU WEATHER STATION NEAR FOUR MILE CREEK WATERSHED

BEGINNING DATE	ENDING DATE	MAXIMUM TEMPERATURE DEGREES C	MINIMUM TEMPERATURE DEGREES C	SOLAR RADIATION LANGLEYS	TOTAL WIND KILOMETERS	RELATIVE HUMIDITY PERCENT	PAN EVAPORATION MM	PRECIPITATION MM	NET EVAPORATION MM
8/24/77	8/25/77	25.0	10.6		135.2	71	5.3		5.3
8/25/77	8/26/77	27.8	18.3		180.9	81	-9.9	12.7	2.8
8/26/77	8/27/77	31.7	21.7		274.6	63	7.1		7.1
8/27/77	8/28/77	27.8	10.6		95.9	60	-30.5	35.6	5.1
8/28/77	8/29/77	26.1	9.4		65.0	57	5.8		5.8
8/29/77	8/30/77	27.2	14.4		140.5	80	2.8		2.8
8/30/77	8/31/77	28.3	18.3		201.8	72	-2.0	5.8	3.8
8/31/77	9/ 1/77	27.8	16.7		51.8	67	-17.3	22.6	5.3
9/ 1/77	9/ 2/77	24.4	15.0		110.1	59	4.6		4.6
9/ 2/77	9/ 3/77	20.6	13.3		18.2	91	-3.6	6.1	2.5
9/ 3/77	9/ 4/77	26.7	18.3		143.9	69	2.0		2.0
9/ 4/77	9/ 5/77	27.2	12.8		41.8	49	3.0		3.0
9/ 5/77	9/ 6/77	28.3	13.9		60.0	84	3.8		3.8
9/ 6/77	9/ 7/77	26.1	16.1		63.2	65	0.3	3.0	3.3
9/ 7/77	9/ 8/77	30.0	15.0		146.6	62	3.8		3.8
9/ 8/77	9/ 9/77	23.3	12.8		336.8	37	6.6	3.8	10.4
9/ 9/77	9/10/77	25.0	7.8		88.8	35	4.6		4.6
9/10/77	9/11/77	25.6	8.9		86.9	43	6.1		6.1
9/11/77	9/12/77	18.9	15.0		61.2	98	-4.1	6.3	2.2
9/12/77	9/13/77	23.3	13.9		29.5	48	0.8		0.8
9/13/77	9/14/77	25.0	7.8		33.6	45	3.3		3.3
9/14/77	9/15/77	19.4	10.0		61.3	99	2.0	3.0	5.0
9/15/77	9/16/77	18.3	12.2		43.0	87	-1.8		-1.8
9/16/77	9/17/77	25.0	15.6		236.4	85	-5.8	7.7	1.9
9/17/77	9/18/77	25.6	16.1		27.4	85		71.0	
9/18/77	9/19/77	17.2	11.7		118.9	70	4.8		4.8
9/19/77	9/20/77	21.7	10.6		149.0	55	3.0		3.0
9/20/77	9/21/77	23.9	10.6		174.0	61	6.9		6.9
9/21/77	9/22/77	24.4	11.7		61.3	55	4.8		4.8
9/22/77	9/23/77	20.6	9.4		51.5	99	-6.6	9.8	3.2
9/23/77	9/24/77	20.0	10.0		241.7	52	-7.1	11.3	4.2
9/24/77	9/25/77	24.4	10.0		75.8	46	3.8		3.8
9/25/77	9/26/77	23.9	9.4		177.0	43	5.6		5.6
9/26/77	9/27/77	21.1	6.7		84.3	47	4.1		4.1
9/27/77	9/28/77	23.9	6.1		14.0	45	2.8		2.8
9/28/77	9/29/77	25.0	12.8		67.3	65	3.3		3.3
9/29/77	9/30/77	18.3	10.0		83.4	97	-8.9	15.2	6.3
9/30/77	10/ 1/77	13.9	8.3		259.9	79	-6.9	7.2	0.3
10/ 1/77	10/ 2/77	17.2	3.3		62.8	44	4.6		4.6
10/ 2/77	10/ 3/77	20.0	2.2		30.6	44	2.8		2.8
10/ 3/77	10/ 4/77	18.3	1.7		123.9	67	1.8		1.8
10/ 4/77	10/ 5/77	16.1	3.3		123.3	43	5.6		5.6
10/ 5/77	10/ 6/77	15.0	-0.6		39.8	45	2.8		2.8
10/ 6/77	10/ 7/77	10.6	5.0		159.3	100	-23.9	27.6	3.7
10/ 7/77	10/ 8/77	10.6	3.9		352.9	89	-0.5	1.1	0.6
10/ 8/77	10/ 9/77	14.4	2.2		229.0	55	1.3		1.3

THE INSTRUMENTS WERE READ AT APPROXIMATELY 6:00 P.M. EACH DAY. THE MAXIMUM AND MINIMUM TEMPERATURES WERE ADJUSTED FOR EACH CALENDAR DAY AND ARE ASSOCIATED WITH THE ENDING DATE.

TABLE B2-1. WEATHER DATA AT ISU WEATHER STATION NEAR FOUR MILE CREEK WATERSHED

BEGINNING DATE	ENDING DATE	MAXIMUM TEMPERATURE DEGREES C	MINIMUM TEMPERATURE DEGREES C	SOLAR RADIATION LANGLEYS	TOTAL WIND KILOMETERS	RELATIVE HUMIDITY PERCENT	PAN EVAPORATION MM	PRECIPITATION MM	NET EVAPORATION MM
10/ 9/77	10/10/77	17.2	0.6		131.3	96	-1.8	5.8	4.0
10/10/77	10/11/77	7.2	0.6		320.6	69	1.5		1.5
10/11/77	10/12/77	12.2	-1.1		244.3	54	1.8		1.8
10/12/77	10/13/77	18.3	-0.6		86.9	43	2.5		2.5
10/13/77	10/14/77	20.6	3.9		133.1	45	2.5		2.5
10/14/77	10/15/77	11.7	0.0		130.7	60	2.8		2.8
10/15/77	10/16/77	13.9	-3.3		125.0	46	4.6		4.6
10/16/77	10/17/77	17.8	2.8		199.7	44	3.8		3.8
10/17/77	10/18/77	16.1	3.9		265.7	50	0.8		0.8
10/18/77	10/19/77	18.3	-0.6		17.2	52	3.0		3.0
10/19/77	10/20/77	20.6	3.9		161.9	50	4.6		4.6
10/20/77	10/21/77	23.3	8.3		135.0	62	2.0	9.4	11.4
10/21/77	10/22/77	12.2	5.6		85.0	94	-10.2	5.1	-5.1
10/22/77	10/23/77	8.9	4.4		135.0	99	-31.0	33.0	2.0
10/23/77	10/24/77	15.0	8.9		135.7	98	-7.6	6.1	-1.5
10/24/77	10/25/77	11.7	8.3		84.5	90	2.5		2.5
10/25/77	10/26/77	20.6	3.9		130.0	83	0.3		0.3
10/26/77	10/27/77	15.6	5.6		103.2	97	1.5		1.5
10/27/77	10/28/77	15.6	5.6		54.6	69	1.0		1.0
10/28/77	10/29/77	18.3	7.2		104.9	50	2.5		2.5
10/29/77	10/30/77	14.4	5.0		185.4	82	2.0		2.0
10/30/77	10/31/77	18.3	8.3		192.6	91	-8.6	9.9	1.3
12/16/77	1/ 5/78			3415				34.3	
1/ 5/78	1/13/78			1250				6.1	
1/13/78	1/24/78			2560					
1/24/78	2/ 3/78			2396				12.2	
2/ 3/78	2/16/78			3374				4.0	
2/16/78	2/28/78			4018				3.0	
2/28/78	3/ 9/78			3564				1.0	
3/ 9/78	3/17/78			2365				13.2	
3/17/78	3/22/78			2345					
3/22/78	3/27/78			1816					
3/27/78	3/28/78	18.9	2.2	454		61			
3/28/78	3/29/78	10.6	-1.1	480		51			
3/29/78	3/30/78	20.6	2.8	521		64			
3/30/78	3/31/78	26.7	9.4	501		50			
3/31/78	4/ 1/78	12.8	3.9	511		61			
4/ 1/78	4/ 2/78	5.6	2.8	206		84			
4/ 2/78	4/ 3/78	23.3	3.9	404		72		1.0	
4/ 3/78	4/ 4/78	15.0	5.6	364		65			
4/ 4/78	4/ 5/78	10.0	2.2	93		100		19.7	
4/ 5/78	4/ 6/78	18.3	7.8	380		90		11.5	
4/ 6/78	4/ 7/78	21.1	5.6	473	85.0	53	3.3		3.3
4/ 7/78	4/ 8/78	18.3	2.8	86	144.4	100	-0.5	3.8	3.3
4/ 8/78	4/ 9/78	19.4	3.3	189	228.8	92	0.3	0.4	0.7
4/ 9/78	4/10/78	16.7	5.0	195	156.8	83	-17.8	19.4	1.6

THE INSTRUMENTS WERE READ AT APPROXIMATELY 6:00 P.M. EACH DAY. THE MAXIMUM AND MINIMUM TEMPERATURES WERE ADJUSTED FOR EACH CALENDAR DAY AND ARE ASSOCIATED WITH THE ENDING DATE.

TABLE B2-1. WEATHER DATA AT ISU WEATHER STATION NEAR FOUR MILE CREEK WATERSHED

BEGINNING DATE	ENDING DATE	MAXIMUM TEMPERATURE DEGREES C	MINIMUM TEMPERATURE DEGREES C	SOLAR RADIATION LANGLEYS	TOTAL WIND KILOMETERS	RELATIVE HUMIDITY PERCENT	PAN EVAPORATION MM	PRECIPITATION MM	NET EVAPORATION MM
4/10/78	4/11/78	16.1	1.1	580	207.8	47	6.3		6.3
4/11/78	4/12/78	16.7	8.3	546	526.9	50	7.6		7.6
4/12/78	4/13/78	11.1	2.2	576	284.5	51	4.8		4.8
4/13/78	4/14/78	12.8	2.8	259	70.3	60	2.3		2.3
4/14/78	4/15/78	15.0	0.0	569	131.6	50	4.1		4.1
4/15/78	4/16/78	13.9	1.7	563	107.0	47	5.1		5.1
4/16/78	4/17/78	9.4	0.0	83	187.8	100	-26.9	31.6	4.7
4/17/78	4/18/78	9.4	5.0	171	272.9	98	-30.0	32.1	2.1
4/18/78	4/19/78	7.8	2.8	144	281.5	91	-1.0	2.8	1.8
4/19/78	4/20/78	5.0	0.0	145	303.7	99	-0.5	0.5	-0.0
4/20/78	4/21/78	12.8	-0.6	648	69.4	47	1.8		1.8
4/21/78	4/22/78	13.3	2.2	371	165.0	68	4.3		4.3
4/22/78	4/23/78	11.1	5.6	326	336.2	70	-3.3	6.3	3.0
4/23/78	4/24/78	11.7	5.6	119	175.3	86	1.8		1.8
4/24/78	4/25/78	17.2	3.9	664	171.4	47	4.6		4.6
4/25/78	4/26/78	19.4	1.7	603	54.9	48	1.8		1.8
4/26/78	4/27/78	21.1	3.9	600	59.5	45	8.1		8.1
4/27/78	4/28/78	21.7	7.2	384	146.9	50	3.3		3.3
4/28/78	4/29/78	17.2	9.4	286	111.2	63	5.8		5.8
4/29/78	4/30/78	16.7	4.4	534	197.9	48	5.3		5.3
4/30/78	5/ 1/78	13.9	-0.6	690	208.4	47	3.6		3.6
5/ 1/78	5/ 2/78	17.2	-0.6	668	79.0	45	7.1		7.1
5/ 2/78	5/ 3/78	18.3	1.7	503	91.6	58	4.3		4.3
5/ 3/78	5/ 4/78	13.3	7.2	293	206.6	47	7.6		7.6
5/ 4/78	5/ 5/78	12.8	5.6	226	169.0	62	2.3		2.3
5/ 5/78	5/ 6/78	15.0	1.1	263	66.0	61	1.8		1.8
5/ 6/78	5/ 7/78	11.7	7.2	74	284.9	97	-13.2	12.7	-0.5
5/ 7/78	5/ 8/78	12.8	8.3	386	195.1	72	-4.1	7.9	3.8
5/ 8/78	5/ 9/78	16.7	11.7	336	447.4	54	2.8		2.8
5/ 9/78	5/10/78	26.7	6.7	701	208.4	46	6.3		6.3
5/10/78	5/11/78	25.0	15.0	396	368.9	67	6.3		6.3
5/11/78	5/12/78	20.0	11.1	280	192.2	90	1.5		1.5
5/12/78	5/13/78	18.3	6.7	593	225.0	49	-37.6	45.7	8.1
5/13/78	5/14/78	21.1	6.1	670	176.5	55	6.9		6.9
5/14/78	5/15/78	17.8	8.3	299	203.9	72	3.6		3.6
5/15/78	5/16/78	19.4	12.2	380	53.3	58	3.0		3.0
5/16/78	5/17/78	21.1	12.2	543	64.5	52	3.8		3.8
5/17/78	5/18/78	26.1	9.4	649	66.0	48	6.1		6.1
5/18/78	5/19/78	27.8	13.9	493	106.9	62	4.1		4.1
5/19/78	5/20/78	23.3	11.7	408	259.7	52	4.6		4.6
5/20/78	5/21/78	20.0	8.3	651	77.6	51	4.8		4.8
5/21/78	5/22/78	17.8	8.9	423	32.5	65	4.8	0.5	5.3
5/22/78	5/23/78	18.9	12.2	151	127.9	85			
5/23/78	5/24/78	26.1	12.8	394	73.7	66			
5/24/78	5/25/78	33.3	18.9	624	119.1	48	7.4		7.4
5/25/78	5/26/78	33.9	20.6	615	304.2	48	8.6		8.6

THE INSTRUMENTS WERE READ AT APPROXIMATELY 6:00 P.M. EACH DAY. THE MAXIMUM AND MINIMUM TEMPERATURES WERE ADJUSTED FOR EACH CALENDAR DAY AND ARE ASSOCIATED WITH THE ENDING DATE.

TABLE B2-1. WEATHER DATA AT ISU WEATHER STATION NEAR FOUR MILE CREEK WATERSHED

BEGINNING DATE	ENDING DATE	MAXIMUM TEMPERATURE DEGREES C	MINIMUM TEMPERATURE DEGREES C	SOLAR RADIATION LANGLEYS	TOTAL WIND KILOMETERS	RELATIVE HUMIDITY PERCENT	PAN EVAPORATION MM	PRECIPITATION MM	NET EVAPORATION MM
5/26/78	5/27/78	32.2	18.9	468	162.4	92	5.1	3.0	8.1
5/27/78	5/28/78	26.7	17.8	364	148.1	69	-0.8	2.8	2.0
5/28/78	5/29/78	25.0	17.2	471	217.3	69	6.1		6.1
5/29/78	5/30/78	28.3	13.9	718	233.2	45	7.4		7.4
5/30/78	5/31/78	28.3	16.1	411	92.4	55	4.6		4.6
5/31/78	6/ 1/78	20.6	11.1	526	228.7	65	-5.8	13.5	7.7
6/ 1/78	6/ 2/78	22.2	8.3	651	143.6	46	5.1		5.1
6/ 2/78	6/ 3/78	24.4	11.7	540	101.4	47	2.5		2.5
6/ 3/78	6/ 4/78	29.4	11.1	666	144.8	45	7.9		7.9
6/ 4/78	6/ 5/78	28.9	10.6	676	99.8	47	7.6		7.6
6/ 5/78	6/ 6/78	27.8	13.9	470	96.6	50	4.8	0.5	5.3
6/ 6/78	6/ 7/78	27.2	16.1	545	99.0	68	-0.5	2.5	2.0
6/ 7/78	6/ 8/78	22.8	6.7	755	155.8	45	6.3		6.3
6/ 8/78	6/ 9/78	29.4	11.7	731	118.3	46	7.6		7.6
6/ 9/78	6/10/78	31.1	16.7	718	346.5	47	12.4		12.4
6/10/78	6/11/78	30.0	18.3	554	337.2	57	8.9		8.9
6/11/78	6/12/78	26.7	13.9	684	164.5	46	7.6		7.6
6/12/78	6/13/78	29.4	10.0	761	35.9	45	6.1		6.1
6/13/78	6/14/78	22.2	16.7	230	227.9	75	-3.8	8.1	4.3
6/14/78	6/15/78	26.1	16.1	510	250.7	78	-17.0	24.9	7.9
6/15/78	6/16/78	29.4	19.4	401	196.2	72	4.1		4.1
6/16/78	6/17/78	27.8	17.2	259	163.7	83	2.5	2.5	5.0
6/17/78	6/18/78	25.6	14.4	699	80.9	51	3.8		3.8
6/18/78	6/19/78	28.9	14.4	784	150.6	47	8.9		8.9
6/19/78	6/20/78	22.2	16.7	486	155.8	61	-31.0	39.1	8.1
6/20/78	6/21/78	24.4	8.9	719	69.7	49	8.6		8.6
6/21/78	6/22/78	25.6	15.0	459	95.1	62	5.8		5.8
6/22/78	6/23/78	27.2	15.6	478	96.2	67	1.3	1.5	2.8
6/23/78	6/24/78	31.1	20.6	490	63.7	63	3.8		3.8
6/24/78	6/25/78	30.0	23.9	390	141.6	76	5.3		5.3
6/25/78	6/26/78	31.7	22.2	561	105.7	60	2.8	1.3	4.1
6/26/78	6/27/78	30.6	18.3	596	100.9	50	6.6		6.6
6/27/78	6/28/78	31.1	20.0	476	56.8	96	-6.9	15.2	8.3
6/28/78	6/29/78	30.0	20.6	581	133.6	80	1.5	2.5	4.0
6/29/78	6/30/78	32.2	20.6	598	90.9	60	5.3		5.3
6/30/78	7/ 1/78	28.9	20.6	361	136.6	83	4.8		4.8
7/ 1/78	7/ 2/78	27.8	21.1	604	93.3	63	4.6		4.6
7/ 2/78	7/ 3/78	27.2	20.0	438	28.6	64	4.1		4.1
7/ 3/78	7/ 4/78	26.7	16.1	463	65.0	73	5.1		5.1
7/ 4/78	7/ 5/78	32.2	21.1	668	63.9	68	6.3		6.3
7/ 5/78	7/ 6/78	29.4	18.9	372	191.7	83	-2.8	5.6	2.8
7/ 6/78	7/ 7/78	26.1	17.8	626	176.7	65	0.3	7.6	7.9
7/ 7/78	7/ 8/78	27.2	14.4	687	45.4	60	7.9	2.5	10.4
7/ 8/78	7/ 9/78	26.1	16.7	585	107.2	63	-1.8	4.1	2.3
7/ 9/78	7/10/78	24.4	11.1	722	41.8	50	5.8		5.8
7/10/78	7/11/78	25.6	11.1	634	61.2	51	5.8		5.8

THE INSTRUMENTS WERE READ AT APPROXIMATELY 6:00 P.M. EACH DAY. THE MAXIMUM AND MINIMUM TEMPERATURES WERE ADJUSTED FOR EACH CALENDAR DAY AND ARE ASSOCIATED WITH THE ENDING DATE.

TABLE B2-1. WEATHER DATA AT ISU WEATHER STATION NEAR FOUR MILE CREEK WATERSHED

BEGINNING DATE	ENDING DATE	MAXIMUM TEMPERATURE DEGREES C	MINIMUM TEMPERATURE DEGREES C	SOLAR RADIATION LANGLEYS	TOTAL WIND KILOMETERS	RELATIVE HUMIDITY PERCENT	PAN EVAPORATION MM	PRECIPITATION MM	NET EVAPORATION MM
7/11/78	7/12/78	23.3	16.7	211	148.2	85	-2.0	3.8	1.8
7/12/78	7/13/78	26.7	18.3	689	81.1	51	5.1		5.1
7/13/78	7/14/78	27.8	16.1	410	67.1	72	3.3		3.3
7/14/78	7/15/78	32.8	17.8	709	34.0	49	5.1		5.1
7/15/78	7/16/78	31.7	20.6	640	37.8	55	5.6		5.6
7/16/78	7/17/78	32.8	21.1	272	78.4	68	-3.8	5.1	1.3
7/17/78	7/18/78	30.0	20.6	465	68.2	71	1.0	8.9	9.9
7/18/78	7/19/78	31.1	20.0	640	263.7	68	-17.8	23.6	5.8
7/19/78	7/20/78	24.4	19.4	134	23.0	84	0.8	3.3	4.1
7/20/78	7/21/78	27.8	17.8	275	22.0	83	-2.8	2.0	-0.8
7/21/78	7/22/78	26.7	17.8	312	95.6	77	1.0	4.1	5.1
7/22/78	7/23/78	26.7	12.2	645	34.0	50	5.1		5.1
7/23/78	7/24/78	26.7	14.4	664	128.7	59	6.3		6.3
7/24/78	7/25/78	32.2	17.2	603	71.5	68	5.8		5.8
7/25/78	7/26/78	27.8	18.9	601	141.3	53	3.3	5.1	8.4
7/26/78	7/27/78	26.1	14.4	631	43.0	54	6.1		6.1
7/27/78	7/28/78	27.8	13.3	585	127.0	74	6.1		6.1
7/28/78	7/29/78	26.1	18.9	336	97.2	72	2.8		2.8
7/29/78	7/30/78	24.4	15.6	496	42.6	56	4.1		4.1
7/30/78	7/31/78	25.6	15.0	305	26.7	65	5.6		5.6
7/31/78	8/ 1/78	28.3	15.0	706	119.1	63	4.1		4.1
8/ 1/78	8/ 2/78	27.8	18.3	531	96.9	56	5.1		5.1
8/ 2/78	8/ 3/78	22.8	7.2	653	51.3	48	6.6		6.6
8/ 3/78	8/ 4/78	25.0	7.8	724	33.3	49	5.3		5.3
8/ 4/78	8/ 5/78	26.7	11.7	619	63.6	49	5.1		5.1
8/ 5/78	8/ 6/78	28.9	13.9	624	74.5	52	6.1		6.1
8/ 6/78	8/ 7/78	28.3	12.8	590	83.0	59	5.8		5.8
8/ 7/78	8/ 8/78	29.4	19.4	446	178.0	78	6.6		6.6
8/ 8/78	8/ 9/78	28.9	16.1	619	32.3	49	5.8		5.8
8/ 9/78	8/10/78	28.3	16.7	500	27.8	56	5.3		5.3
8/10/78	8/11/78	27.2	13.3	450	39.8	60	4.3		4.3
8/11/78	8/12/78	32.2	15.6	614	49.4	56	5.1		5.1
8/12/78	8/13/78	31.7	17.8	636	89.3	79	8.1		8.1
8/13/78	8/14/78	33.3	21.1	585	149.5	62	6.1		6.1
8/14/78	8/15/78	28.9	18.3	351	137.1	51	3.8		3.8
8/15/78	8/16/78	30.6	15.6	661	223.7	48	7.6		7.6
8/16/78	8/17/78	30.6	17.8	531	154.0	67	7.4	1.3	8.7
8/17/78	8/18/78	30.0	16.7	397	76.4	71	5.1		5.1
8/18/78	8/19/78	25.6	11.7	588	132.0	47	5.1		5.1
8/19/78	8/20/78	28.9	9.4	696	76.4	50	8.1		8.1
8/20/78	8/21/78	22.2	13.3	106	30.1	80	-15.5	17.8	2.3
8/21/78	8/22/78	32.2	17.2	516	123.3	68	2.3		2.3
8/22/78	8/23/78	31.7	20.6	571	194.1	54	9.1		9.1
8/23/78	8/24/78	32.8	21.1	447	89.2	65	3.8		3.8
8/24/78	8/25/78	30.0	20.0	296	43.8	74	3.8		3.8
8/25/78	8/26/78	26.1	17.8	234	54.4	585	-20.6	17.8	-2.8

THE INSTRUMENTS WERE READ AT APPROXIMATELY 6:00 P.M. EACH DAY. THE MAXIMUM AND MINIMUM TEMPERATURES WERE ADJUSTED FOR EACH CALENDAR DAY AND ARE ASSOCIATED WITH THE ENDING DATE.

TABLE B2-1. WEATHER DATA AT ISU WEATHER STATION NEAR FOUR MILE CREEK WATERSHED

BEGINNING DATE	ENDING DATE	MAXIMUM TEMPERATURE DEGREES C	MINIMUM TEMPERATURE DEGREES C	SOLAR RADIATION LANGLEYS	TOTAL WIND KILOMETERS	RELATIVE HUMIDITY PERCENT	PAN EVAPORATION MM	PRECIPITATION MM	NET EVAPORATION MM
8/26/78	8/27/78	26.7	18.3	232	60.0	85		68.3	
8/27/78	8/28/78	25.6	15.6	534	134.4	65	1.3		1.3
8/28/78	8/29/78	26.1	11.1	550	41.7	48	4.6		4.6
8/29/78	8/30/78	26.7	11.7	573	23.3	52	5.1		5.1
8/30/78	8/31/78	27.2	13.3	580	43.5	54	6.3		6.3
8/31/78	9/ 1/78	26.7	15.0	509	116.0	59	7.1		7.1
9/ 1/78	9/ 2/78	30.0	17.2	598	41.5	58	3.0		3.0
9/ 2/78	9/ 3/78	32.2	19.4		143.4	48	4.6		4.6
9/ 3/78	9/ 4/78	30.6	13.9	518	114.3	50	7.9		7.9
9/ 4/78	9/ 5/78	30.0	14.4	566	145.6	49	5.8		5.8
9/ 5/78	9/ 6/78	32.2	15.0	509	19.2	59	4.8		4.8
9/ 6/78	9/ 7/78	35.6	18.3	507	29.3	50	5.1		5.1
9/ 7/78	9/ 8/78	33.3	20.6	500	98.0	49	6.3		6.3
9/ 8/78	9/ 9/78	33.3	20.0	470	23.0	52	5.1		5.1
9/ 9/78	9/10/78	31.7	20.0	432	45.5	51	5.3		5.3
9/10/78	9/11/78	32.2	20.6	439	96.9	59	5.8		5.8
9/11/78	9/12/78	30.0	20.6	248	100.7	63	8.9		8.9
9/12/78	9/13/78	23.3	16.7	282	135.7	87	-34.0	35.8	1.8
9/13/78	9/14/78	24.4	14.4	518	155.9	48	-31.0	38.6	7.6
9/14/78	9/15/78	27.8	13.9	484	110.6	53	4.1		4.1
9/15/78	9/16/78	25.6	15.0	186	69.5	80	6.1	2.5	8.6
9/16/78	9/17/78	20.6	15.6	134	98.2	84	-2.8		-2.8
9/17/78	9/18/78	27.8	15.6	180	110.7	70	-13.2	16.8	3.6
9/18/78	9/19/78	28.9	16.1	255	124.1	83	2.8		2.8
9/19/78	9/20/78	15.6	11.7	84	91.2	96		57.1	
9/20/78	9/21/78	18.9	8.9	468	38.0	46	2.0		2.0
9/21/78	9/22/78	22.2	5.6	493	76.6	48	4.1		4.1
9/22/78	9/23/78	22.2	5.0	484	75.5	49	4.1		4.1
9/23/78	9/24/78	26.7	11.7	477	72.3	46	4.1		4.1
9/24/78	9/25/78	23.3	6.7	475	30.4	47	4.6		4.6
9/25/78	9/26/78	23.9	10.0	443	131.5	50	4.6		4.6
9/26/78	9/27/78	17.8	7.8	452	122.3	49	4.3		4.3
9/27/78	9/28/78	20.6	4.4	414	63.9	50	4.1		4.1
9/28/78	9/29/78	19.4	10.6	136	151.1	91	-1.0	3.8	2.8
9/29/78	9/30/78	19.4	8.9	245	131.5	49	1.5		1.5
9/30/78	10/ 1/78	22.2	5.0	430	60.4	50	3.3		3.3
10/ 1/78	10/ 2/78	18.3	12.2		77.9	98	-13.7	15.7	2.0
10/ 2/78	10/ 3/78	15.6	7.2		156.4	84	1.3	1.0	2.3
10/ 3/78	10/ 4/78	16.7	5.6		104.0	57	1.3		1.3
10/ 4/78	10/ 5/78	11.1	7.2		207.0	65	1.0		1.0
10/ 5/78	10/ 6/78	12.8	5.0		237.2	67	2.5		2.5
10/ 6/78	10/ 7/78	11.7	2.2		104.9	57	2.3		2.3
10/ 7/78	10/ 8/78	15.6	0.6		109.6	51	2.8		2.8
10/ 8/78	10/ 9/78	14.4	10.0		72.9	98	-8.6	10.5	1.9
10/ 9/78	10/10/78	18.3	10.0		123.4	80	-3.0	1.7	-1.3
10/10/78	10/11/78	17.2	5.0		109.6	75	1.5		1.5

THE INSTRUMENTS WERE READ AT APPROXIMATELY 6:00 P.M. EACH DAY. THE MAXIMUM AND MINIMUM TEMPERATURES WERE ADJUSTED FOR EACH CALENDAR DAY AND ARE ASSOCIATED WITH THE ENDING DATE.

TABLE B2-1. WEATHER DATA AT ISU WEATHER STATION NEAR FOUR MILE CREEK WATERSHED

BEGINNING DATE	ENDING DATE	MAXIMUM TEMPERATURE DEGREES C	MINIMUM TEMPERATURE DEGREES C	SOLAR RADIATION LANGLEYS	TOTAL WIND KILOMETERS	RELATIVE HUMIDITY PERCENT	PAN EVAPORATION MM	PRECIPITATION MM	NET EVAPORATION MM
10/11/78	10/12/78	16.7	7.8		23.8	83	0.8		0.8
10/12/78	10/13/78	12.2	3.9		75.3	82	1.3		1.3
10/13/78	10/14/78	12.2	-2.2		50.7	82	1.8		1.8
10/14/78	10/15/78	13.3	5.6		217.4	48	3.0		3.0
10/15/78	10/16/78	12.8	0.6		36.5	48	4.6		4.6
10/16/78	10/17/78	14.4	6.7		169.1	71	0.8		0.8
10/17/78	10/18/78	15.6	1.1		80.5	73	2.3		2.3
10/18/78	10/19/78	20.0	-0.6		92.4	51	1.8		1.8
10/19/78	10/20/78	25.0	5.0		141.3	79	3.3		3.3
10/20/78	10/21/78	26.7	13.3		230.6	51	4.1		4.1
10/21/78	10/22/78	16.1	5.6		33.3	95	-2.3	4.3	2.0
10/22/78	10/23/78	12.8	-1.1		44.4	85	1.3		1.3
10/23/78	10/24/78	16.7	0.0		176.2	49	2.8		2.8
10/24/89	10/25/78	12.2	1.7		179.9	75	1.0		1.0
10/25/78	10/26/78	13.9	-0.6		154.5	52	1.8		1.8
10/26/78	10/27/78	15.6	0.6		107.3	50	2.3		2.3
10/27/78	10/28/78	13.9	-1.1		11.6	48	1.5		1.5
10/28/78	10/29/78	17.2	3.3		240.8	60	6.3		6.3
10/29/78	10/30/78	22.2	5.0		192.0	55	3.8		3.8
10/30/78	10/31/78	13.3	2.8		72.6	54	2.0		2.0
10/31/78	11/ 1/78	16.1	-1.7		127.1	68	1.5		1.5
11/ 1/78	11/ 2/78	22.2	7.2		71.3	62	1.5		1.5
11/ 2/78	11/ 3/78	23.3	12.2		160.3	68	3.3		3.3
11/ 3/78	11/ 4/78	22.8	6.7		64.7	67	2.0		2.0
11/ 4/78	11/ 5/78	17.2	5.6		160.3	66	0.3	1.5	1.8
11/ 5/78	11/ 6/78	9.4	-1.1		31.9	56	2.3		2.3
11/ 6/78	11/ 7/78	12.2	-3.9		100.6	55	1.8		1.8
11/ 7/78	11/ 8/78	17.2	3.3		358.6	58	3.0		3.0
11/ 8/78	11/ 9/78	17.2	4.4		170.6	63	2.5		2.5
11/ 9/78	11/10/78	18.3	7.2		60.6	59	2.3		2.3
11/10/78	11/11/78	10.6	2.8		155.0	93	1.3		1.3
11/11/78	11/12/78	7.2	1.7		96.6	100	-0.9	41.9	35.0
11/12/78	11/13/78	13.3	-1.1		278.1	83	-32.8		-32.8
11/13/78	11/14/78	2.2	-3.9			84			
11/14/78	11/15/78	3.3	-6.1	249		77			
11/15/78	11/16/78	1.1	-3.3	74		100			
11/16/78	11/17/78	1.7	0.6	105		96		38.1	
11/17/78	11/18/78	7.2	-3.3	190		94			
11/18/78	11/19/78	-3.3	-11.1	267		85			
11/19/78	11/20/78	-5.6	-15.6	83		90			
11/20/78	11/21/78	-5.6	-7.8	81		85			
11/21/78	11/22/78	1.1	-6.1	65		90		7.1	
11/22/78	11/23/78	1.1	-3.3	80		90			
11/23/78	11/24/78	2.8	-7.2	284		91			
11/24/78	11/25/78	0.0	-4.4	152		96			
11/25/78	11/26/78	-0.6	-3.3	82		92		1.0	

THE INSTRUMENTS WERE READ AT APPROXIMATELY 6:00 P.M. EACH DAY. THE MAXIMUM AND MINIMUM TEMPERATURES WERE ADJUSTED FOR EACH CALENDAR DAY AND ARE ASSOCIATED WITH THE ENDING DATE.

TABLE B2-1. WEATHER DATA AT ISU WEATHER STATION NEAR FOUR MILE CREEK WATERSHED

BEGINNING DATE	ENDING DATE	MAXIMUM TEMPERATURE DEGREES C	MINIMUM TEMPERATURE DEGREES C	SOLAR RADIATION LANGLEYS	TOTAL WIND KILOMETERS	RELATIVE HUMIDITY PERCENT	PAN EVAPORATION MM	PRECIPITATION MM	NET EVAPORATION MM
11/26/78	11/27/78	-1.1	-7.8	167		96		1.0	
11/27/78	11/28/78	-2.2	-15.6	201		86			
11/28/78	11/29/78	3.3	-7.2	219		82		6.9	
11/29/78	11/30/78	-5.6	-14.4	88		89			
11/30/78	12/ 1/78	-5.0	-9.4	115		88		4.1	
12/ 1/78	12/ 2/78	-3.3	-11.1	83		96		8.4	
12/ 2/78	12/ 3/78	-3.3	-14.4	129		91			
12/ 3/78	12/ 4/78	-0.6	-17.8	187		87			
12/ 4/78	12/ 5/78	0.0	-7.8	146		89		2.3	
12/ 5/78	12/ 6/78	-3.3	-15.6	193		83			
12/ 6/78	12/ 7/78	-5.0	-15.0	105		98			
12/ 7/78	12/ 8/78	-9.4	-17.8	270		84			
12/ 8/78	12/ 9/78	-12.2	-20.6	275		84			
12/ 9/78	12/10/78	-8.3	-21.7	148		88			
12/10/78	12/11/78	1.7	-8.3	112		89			
12/11/78	12/12/78	3.3	-4.4	144		90			
12/12/78	12/13/78	1.7	-7.2	137		87			
12/13/78	12/14/78	3.3	-8.3	211		71			
12/14/78	12/15/78	3.3	-3.3	234		82			
12/15/78	12/16/78	1.1	-8.3	232		86			
12/16/78	12/17/78	2.2	-8.9	232		74			
12/17/78	12/18/78	5.6	-2.2	224		85			
12/18/78	12/19/78	1.1	-1.1	73		100			
12/19/78	12/20/78	0.6	-6.7	126		90			
12/20/78	12/21/78	0.0	-12.2	238		87			
12/21/78	12/22/78	1.7	-4.4	232		79			
12/22/78	12/23/78	2.2	-7.8	124		86		1.8	
12/23/78	12/24/78	1.1	-13.3	149		93		0.8	
12/24/78	12/25/78	-5.6	-17.8	139		98			
12/25/78	12/26/78	-5.0	-17.2	216		86			
12/26/78	12/27/78	-7.2	-18.3	156		83			
12/27/78	12/28/78	-2.2	-8.3	82		97			
12/28/78	12/29/78	-5.0	-11.1	77		96		3.6	
12/29/78	12/30/78	-10.6	-15.6	137		83			
12/30/78	12/31/78	-13.3	-15.0	83		94		7.9	

THE INSTRUMENTS WERE READ AT APPROXIMATELY 6:00 P.M. EACH DAY. THE MAXIMUM AND MINIMUM TEMPERATURES WERE ADJUSTED FOR EACH CALENDAR DAY AND ARE ASSOCIATED WITH THE ENDING DATE.

TABLE B3-1. TEMPERATURE OF THE SOIL PROFILE IN THE FOUR MILE CREEK AREA

Date	Location	Time	Temperature, °C					
1976		Depth, cm:	2.5	7.5	15	30	60	90
11/15	Site 1	Installed						
11/23	Site 1	0900	-3	-3	0	2	4	6
	Site 1	1200	-1	-1	0	2	4	7
	Site 1	1400	0	0	0	2	5	7
12/2	Site 1	1340	-3	-3	-3	-1	2	--
	Weather station	Installed						
12/9	Site 1	1500	-2	-3	-2	-1	2	4
	Weather station	1630	--	-2	-2	-1	2	-1
12/22	Site 1	1300	-3	-4	-4	-2	1	3
	Weather station	1200	-2	-4	-4	-2	2	4
1977								
1/6	Site 1	1240	-6	-7	-7	-5	-2	-1
	Weather station	1330	-6	-6	-7	-6	-2	-1
1/21	Site 1	1600	-7	-7	--	-7	-4	0
	Weather station	1620	-7	-6	-7	-6	-3	-1
2/8	Site 1	1400	-1	-3	-4	-6	-4	-1
	Weather station	1420	-1	-2	-4	-6	-3	-1
2/11	Site 1	1200	1	0	-1	-2	-2	-1
	Weather station	1500	2	0	-1	-2	-2	-1
	Weather station	1645	1	0	-1	-2	-2	-1
2/17	Site 1	1800	0	-1	-2	-2	-1	-1
	Weather station	1820	-1	-1	-2	-2	-1	-1
2/24	Site 1	1330	0	-1	-1	-1	-1	--
	Weather station	1500	-1	0	0	-1	-1	-1
3/3	Site 1	1150	3	1	--	0	0	--
	Weather station	1235	4	1	1	0	0	1
3/8	Site 1	1230	9	4	2	0	0	--
	Weather station	1600	8	6	1	1	1	1
3/15	Site 1	1330	10	9	6	4	1	--
	Weather station	1530	11	10	8	6	4	3
3/18	Site 1	1520	4	3	3	2	1	0
	Weather station	1540	4	5	4	4	4	3
3/22	Site 1	1220	4	1	1	1	1	1
	Weather station	1420	11	8	3	3	3	4
3/29	Site 1	1240	12	10	9	7	4	3
	Weather station	1400	13	12	9	8	6	5

TABLE B3-1 (continued).

Date	Location	Time	Temperature, °C					
1977			Depth, cm: 2.5	7.5	15	30	60	90
4/6	Site 1	1215	11	6	4	3	3	3
11/14	Site 1	Installed						
	Weather station	Installed						
11/21	Site 1	1230	2	2	4	5	7	9
	Weather station	1300	1	2	4	6	7	9
11/30	Site 1	1245	1	1	2	3	4	7
	Weather station	1400	1	1	1	3	5	7
12/15	Site 1	1250	1	1	2	2	3	5
	Weather station	1330	0	-1	0	1	3	5
1978								
1/5	Site 1	1230	-1	--	0	1	2	3
	Weather station	1330	--	-1	-1	1	2	3
1/13	Site 1	1130	-3	--	-2	-2	1	2
	Weather station	1200	--	-2	-2	-2	1	2
1/24	Site 1	1235	-1	--	-1	-1	--	3
	Weather station	1320	--	-2	-2	-1	1	2
2/3	Site 1	1200	-2	--	-2	-2	--	2
	Weather station	1350	--	-3	-3	-2	-1	1
2/16	Site 1	1200	-2	--	-1	-1	--	1
	Weather station	1400	--	-2	-2	-1	-1	1
2/28	Site 1	1230	-1	--	-1	-1	--	2
	Weather station	1300	--	-2	-1	-1	-1	1
3/9	Site 1	--	-1	--	-1	-1	--	2
	Weather station	--	--	-1	-1	-1	-1	1
3/17	Site 1	1245	0	0	0	-1	--	2
	Weather station	1330	--	--	--	0	0	1
3/21	Site 1	1500	0	0	0	0	--	2
3/22	Site 1	1630	1	1	0	0	--	1
	Weather station	1745	0	0	0	0	0	2
3/23	Site 1	1600	1	1	0	0	--	1
3/27	Site 1	1320	3	3	1	0	--	1
4/3	Weather station	1600	--	4	--	3	1	2
11/21	Site 1	Installed						
		1500	-2	-1	1	2	5	8

TABLE B3-1 (continued).

Date	Location	Time	Temperature, °C					
1978			Depth, cm: 2.5	7.5	15	30	60	90
11/29	Site 1	1300	0	0	1	2	4	6
	Weather station	Installed						
	Weather station	1500	1	2	2	3	5	6
12/6	Site 1	1100	-2	-1	-1	1	3	5
	Weather station	1200	0	1	1	2	4	5
12/21	Site 1	1200	-3	-3	-1	0	2	4
	Weather station	1300	-1	1	1	2	3	4

APPENDIX C

CROP LEAF CANOPY, CROP YIELD AND TILLAGE OPERATIONS

TABLE C1-1. CROP LEAF CANOPY DEVELOPMENT

	Percentage of soil surface area covered by leaf canopy							
	1976			1977			1978	
Date	Site 1 soybeans	Site 2 corn	Date	Site 1 corn	Site 2 soybeans	Date	Site 1 soybeans	Site 2 corn
6/8	7	14	5/16	2	<1	5/23	0	1
6/15	12	26	5/24	11	6	5/31	3	4
6/22	23	36	6/2	24	13	6/7	6	14
6/30	32	66	6/7	35	19	6/14	12	23
7/6	44	70	6/14	52	29	6/21	19	37
7/13	51	77	6/23	75	49	6/29	35	67
7/20	62	80	7/1	82	56	7/7	49	88
7/27	68	--	7/8	77	69	7/13	63	91
8/3	72	--	7/19	--	87	7/24	86	95
8/12	82	--	7/29	--	88	8/1	94	98
8/19	80	--	8/10	--	97	8/14	85	--
8/31	93	--	8/18	89	98	9/19	97	--
9/23	82	--	9/15	75	76	9/21	--	85
	80*	--	9/27	--	91*	10/3	93*	--
10/25	--	96*	11/3	94*	--	10/31	--	95*
11/15	78	64†						

*After harvest.

†After disking.

TABLE C2-1. ESTIMATED CROP YIELDS FROM SITES 1 AND 2

Year	Location	Crop	Yield of grain* tonne/ha	Yield of residue tonne/ha
1976	Site 2	Corn	7.86	7.74
1977	Site 1	Corn	7.34	6.72
1978	Site 2	Corn	8.14	7.84
1976	Site 1	Soybeans	2.32	2.24
1977	Site 2	Soybeans	2.50	2.24†
1978	Site 1	Soybeans	2.97	2.24†

*The yield was calculated on an oven dry weight basis.

†Figure given is the same as the 1976 measurement, because residue yield was not measured.

TABLE C3-1. TILLAGE OPERATIONS AT SITE 1

1976		
4/2	-	Fertilizer was spread on the field.
4/5	-	Field was plowed with a moldboard plow to incorporate the fertilizer and cornstalk residue from the previous year.
5/18	-	Field was disked and some parts rolled with a roller-harrow.
5/19	-	Soybeans were planted and the herbicide was applied.
6/28	-	Field was cultivated for weed control.
9/22-9/23	-	Soybeans were harvested from the field.
1977		
4/19	-	Fertilizer was spread on the field and incorporated by disking.
5/2	-	Field was cultivated and rolled with a roller-harrow to prepare a seedbed and then planted to corn.
5/3	-	Herbicide was applied to the field.
6/9	-	Field was cultivated for weed control.
10/25-10/28	-	Corn was harvested from the field.
11/17	-	Field was disked.
1978		
4/3	-	Fertilizer was spread on the field.
4/3-4/7	-	Field was plowed with a moldboard plow to incorporate the fertilizer and cornstalk residue from the previous year.
5/10	-	Field was cultivated to prepare a seedbed.
5/16	-	Field was disked to prepare a seedbed.
5/17	-	Field was planted to soybeans.
5/18	-	Herbicide was applied to the field.
6/27	-	Field was cultivated for weed control.
7/11	-	Field was cultivated for weed control.
9/28	-	Soybeans were harvested from the field.

TABLE C3-2. TILLAGE OPERATIONS AT SITE 2

1976	
4/2	- Fertilizer was spread on the field and then incorporated by disking.
4/28	- Field was disked to prepare a seedbed and then planted to corn.
4/29	- Herbicide was applied to the field.
6/7	- Field was cultivated for weed control.
6/19	- Field was cultivated for weed control.
10/22	- Corn was harvested from the field.
11/9	- Field was disked.
1977	
3/31	- Fertilizer was spread on the field, which was then plowed with a moldboard plow to incorporate the fertilizer and cornstalk residue from the previous year.
5/9	- Field was disked to prepare a seedbed. - Field was cultivated and then planted to soybeans.
5/10	- Herbicide was applied to the field.
6/9	- Field was cultivated for weed control.
6/21	- Field was cultivated for weed control.
9/16	- Soybeans were harvested from the field.
1978	
5/1	- Fertilizer was spread on the field and incorporated by disking.
5/2	- Field was disked to prepare a seedbed and then planted to corn. - Herbicide was applied to the field.
6/22	- Field was cultivated for weed control.
10/27	- Corn was harvested from the field.
11/9	- Field was disked.

APPENDIX D

STREAM FLOW AND RUNOFF DATA

TABLE D1- 1. FOUR MILE CREEK WATERSHED RUNOFF DATA FOR 1976 SITE 1

SITE	DATE	HOUR	MIN	STAGE M	RUNOFF RATE CMS	RUNOFF INTENSITY MMPH	STORM RUNOFF MM	ANNUAL RUNOFF MM
1	2/27/76	8	0	0.0	0.0	0.0	0.0	0.0
1	2/27/76	13	10	0.101	0.0192	1.368	3.53	3.53
1	2/27/76	14	3	0.134	0.0321	2.285	5.15	5.15
1	2/27/76	15	32	0.116	0.0245	1.746	8.14	8.14
1	2/27/76	16	51	0.088	0.0152	1.083	10.00	10.00
1	2/27/76	18	7	0.058	0.0073	0.523	11.02	11.02
1	2/27/76	19	50	0.024	0.0020	0.144	11.59	11.59
1	2/27/76	22	0	0.0	0.0	0.0	11.74	11.74
1	2/28/76	11	30	0.0	0.0	0.0	0.0	11.74
1	2/28/76	13	0	0.018	0.0015	0.108	0.08	11.82
1	2/28/76	15	0	0.027	0.0023	0.162	0.35	12.09
1	2/28/76	16	20	0.018	0.0015	0.108	0.53	12.27
1	2/28/76	18	10	0.006	0.0005	0.036	0.66	12.40
1	2/28/76	19	0	0.0	0.0	0.0	0.68	12.42
1	3/ 7/76	12	30	0.0	0.0	0.0	0.0	12.42
1	3/ 7/76	13	26	0.006	0.0005	0.036	0.02	12.44
1	3/ 7/76	14	30	0.015	0.0013	0.090	0.08	12.50
1	3/ 7/76	15	39	0.012	0.0010	0.072	0.18	12.60
1	3/ 7/76	18	20	0.003	0.0003	0.018	0.30	12.72
1	3/ 7/76	19	0	0.0	0.0	0.0	0.30	12.72
1	3/ 9/76	9	0	0.0	0.0	0.0	0.0	12.72
1	3/ 9/76	11	52	0.043	0.0047	0.332	0.48	13.20
1	3/ 9/76	14	7	0.107	0.0213	1.519	2.56	15.28
1	3/ 9/76	15	37	0.076	0.0119	0.851	4.34	17.06
1	3/ 9/76	16	38	0.064	0.0087	0.619	5.08	17.81
1	3/ 9/76	20	0	0.0	0.0	0.0	6.13	18.85
1	3/10/76	10	0	0.0	0.0	0.0	0.0	18.85
1	3/10/76	13	35	0.046	0.0052	0.370	0.66	19.51
1	3/10/76	14	36	0.046	0.0052	0.370	1.04	19.89
1	3/10/76	16	0	0.046	0.0052	0.370	1.56	20.41
1	3/10/76	16	30	0.043	0.0047	0.332	1.73	20.58
1	3/10/76	16	55	0.040	0.0041	0.294	1.87	20.71
1	3/10/76	17	15	0.037	0.0036	0.256	1.96	20.80
1	3/10/76	17	45	0.034	0.0031	0.218	2.08	20.92
1	3/10/76	17	55	0.030	0.0025	0.180	2.11	20.96
1	3/10/76	18	0	0.027	0.0023	0.162	2.12	20.97
1	3/10/76	18	5	0.030	0.0025	0.180	2.14	20.98
1	3/10/76	18	8	0.034	0.0031	0.218	2.15	20.99
1	3/10/76	18	10	0.037	0.0036	0.256	2.15	21.00
1	3/10/76	18	12	0.040	0.0041	0.294	2.16	21.01
1	3/10/76	18	14	0.043	0.0047	0.332	2.17	21.02
1	3/10/76	18	16	0.046	0.0052	0.370	2.19	21.03
1	3/10/76	18	19	0.049	0.0057	0.409	2.21	21.05
1	3/10/76	18	21	0.052	0.0063	0.447	2.22	21.07
1	3/10/76	18	26	0.055	0.0068	0.485	2.26	21.11
1	3/10/76	18	33	0.058	0.0073	0.523	2.32	21.16
1	3/10/76	18	42	0.061	0.0079	0.561	2.40	21.25
1	3/10/76	19	0	0.064	0.0087	0.619	2.58	21.42
1	3/10/76	20	0	0.064	0.0087	0.619	3.19	22.04
1	3/10/76	20	36	0.061	0.0079	0.561	3.55	22.40
1	3/10/76	21	10	0.058	0.0073	0.523	3.86	22.70
1	3/10/76	21	40	0.055	0.0068	0.485	4.11	22.96
1	3/10/76	22	0	0.052	0.0063	0.447	4.26	23.11
1	3/10/76	22	18	0.049	0.0057	0.409	4.39	23.24
1	3/10/76	22	42	0.046	0.0052	0.370	4.55	23.39
1	3/10/76	23	0	0.043	0.0047	0.332	4.65	23.50
1	3/10/76	23	12	0.040	0.0041	0.294	4.72	23.56
1	3/10/76	23	45	0.037	0.0036	0.256	4.87	23.71
1	3/10/76	24	0	0.037	0.0036	0.256	4.93	23.78
1	3/11/76	0	20	0.034	0.0031	0.218	5.01	23.86
1	3/11/76	0	50	0.030	0.0025	0.180	5.11	23.96
1	3/11/76	1	45	0.027	0.0023	0.162	5.27	24.11
1	3/11/76	2	35	0.024	0.0020	0.144	5.39	24.24
1	3/11/76	4	0	0.021	0.0018	0.126	5.58	24.43
1	3/11/76	5	10	0.018	0.0015	0.108	5.72	24.57
1	3/11/76	7	0	0.015	0.0013	0.090	5.90	24.75
1	3/11/76	8	30	0.012	0.0010	0.072	6.02	24.87
1	3/11/76	9	0	0.009	0.0008	0.054	6.05	24.90
1	3/11/76	10	0	0.006	0.0005	0.036	6.10	24.95
1	3/11/76	10	35	0.006	0.0005	0.036	6.12	24.97
1	3/11/76	10	38	0.009	0.0008	0.054	6.12	24.97
1	3/11/76	10	40	0.012	0.0010	0.072	6.12	24.97
1	3/11/76	11	57	0.015	0.0013	0.090	6.23	25.07
1	3/11/76	12	10	0.018	0.0015	0.108	6.25	25.10
1	3/11/76	13	0	0.021	0.0018	0.126	6.35	25.19
1	3/11/76	13	35	0.024	0.0020	0.144	6.42	25.27
1	3/11/76	13	50	0.027	0.0023	0.162	6.46	25.31
1	3/11/76	14	10	0.030	0.0025	0.180	6.52	25.37
1	3/11/76	14	55	0.034	0.0031	0.218	6.67	25.52
1	3/11/76	15	45	0.037	0.0036	0.256	6.87	25.71
1	3/11/76	17	15	0.037	0.0036	0.256	7.25	26.10
1	3/11/76	17	45	0.040	0.0041	0.294	7.39	26.23
1	3/11/76	18	25	0.040	0.0041	0.294	7.56	26.43
1	3/11/76	19	20	0.043	0.0047	0.332	7.87	26.72
1	3/11/76	19	35	0.046	0.0052	0.370	7.96	26.81
1	3/11/76	19	45	0.049	0.0057	0.409	8.02	26.87
1	3/11/76	20	0	0.052	0.0063	0.447	8.13	26.98
1	3/11/76	20	15	0.055	0.0068	0.485	8.25	27.09
1	3/11/76	20	23	0.058	0.0073	0.523	8.31	27.16
1	3/11/76	20	30	0.061	0.0079	0.561	8.38	27.22
1	3/11/76	20	38	0.064	0.0087	0.619	8.46	27.30
1	3/11/76	20	45	0.067	0.0095	0.677	8.53	27.38
1	3/11/76	20	48	0.070	0.0103	0.735	8.57	27.41
1	3/11/76	20	52	0.073	0.0111	0.793	8.62	27.47
1	3/11/76	20	55	0.076	0.0119	0.851	8.66	27.51
1	3/11/76	21	0	0.079	0.0127	0.909	8.73	27.58

TABLE D1- 1. CONTINUED

SITE	DATE	HOUR	MIN	STAGE M	RUNOFF RATE CMS	RUNOFF INTENSITY MMPH	STORM RUNOFF MM	ANNUAL RUNOFF MM
1	3/11/76	21	10	0.082	0.0136	0.967	8.89	27.74
1	3/11/76	21	25	0.079	0.0127	0.909	9.12	27.97
1	3/11/76	21	35	0.076	0.0119	0.851	9.27	28.12
1	3/11/76	21	45	0.073	0.0111	0.793	9.41	28.25
1	3/11/76	21	53	0.070	0.0103	0.735	9.51	28.36
1	3/11/76	22	15	0.067	0.0095	0.677	9.77	28.61
1	3/11/76	22	20	0.070	0.0103	0.735	9.83	28.67
1	3/11/76	22	25	0.073	0.0111	0.793	9.89	28.74
1	3/11/76	22	29	0.076	0.0119	0.851	9.94	28.79
1	3/11/76	22	32	0.079	0.0127	0.909	9.99	28.84
1	3/11/76	22	35	0.082	0.0136	0.967	10.04	28.88
1	3/11/76	22	39	0.085	0.0144	1.025	10.10	28.95
1	3/11/76	22	41	0.088	0.0152	1.083	10.14	28.98
1	3/11/76	22	43	0.091	0.0160	1.141	10.17	29.02
1	3/11/76	22	45	0.094	0.0171	1.216	10.21	29.06
1	3/11/76	22	47	0.098	0.0181	1.292	10.26	29.10
1	3/11/76	22	49	0.101	0.0192	1.368	10.30	29.15
1	3/11/76	22	50	0.104	0.0202	1.443	10.32	29.17
1	3/11/76	22	52	0.107	0.0213	1.519	10.37	29.22
1	3/11/76	22	54	0.110	0.0224	1.595	10.42	29.27
1	3/11/76	22	56	0.113	0.0234	1.670	10.48	29.33
1	3/11/76	22	57	0.116	0.0245	1.746	10.51	29.35
1	3/11/76	22	59	0.119	0.0256	1.822	10.57	29.41
1	3/11/76	23	3	0.122	0.0266	1.898	10.69	29.54
1	3/11/76	23	4	0.125	0.0280	1.994	10.72	29.57
1	3/11/76	23	7	0.128	0.0293	2.091	10.83	29.67
1	3/11/76	23	10	0.131	0.0307	2.188	10.93	29.78
1	3/11/76	23	14	0.134	0.0321	2.285	11.08	29.93
1	3/11/76	23	16	0.137	0.0334	2.382	11.16	30.01
1	3/11/76	23	20	0.140	0.0348	2.479	11.32	30.17
1	3/11/76	23	25	0.143	0.0361	2.576	11.53	30.38
1	3/11/76	23	34	0.146	0.0375	2.673	11.93	30.77
1	3/11/76	23	40	0.149	0.0389	2.770	12.20	31.04
1	3/11/76	23	44	0.152	0.0402	2.866	12.39	31.23
1	3/11/76	23	55	0.155	0.0419	2.986	12.92	31.77
1	3/12/76	0	3	0.158	0.0436	3.105	13.33	32.17
1	3/12/76	0	8	0.162	0.0452	3.224	13.59	32.44
1	3/12/76	0	12	0.165	0.0469	3.343	13.81	32.66
1	3/12/76	0	15	0.168	0.0486	3.462	13.98	32.83
1	3/12/76	0	17	0.171	0.0502	3.581	14.10	32.94
1	3/12/76	0	18	0.174	0.0519	3.700	14.16	33.01
1	3/12/76	0	20	0.177	0.0536	3.819	14.28	33.13
1	3/12/76	0	22	0.180	0.0552	3.938	14.41	33.26
1	3/12/76	0	25	0.183	0.0569	4.057	14.61	33.46
1	3/12/76	0	27	0.186	0.0589	4.199	14.75	33.60
1	3/12/76	0	30	0.189	0.0609	4.340	14.96	33.81
1	3/12/76	0	32	0.192	0.0629	4.481	15.11	33.96
1	3/12/76	0	34	0.195	0.0648	4.623	15.26	34.11
1	3/12/76	0	36	0.198	0.0668	4.764	15.42	34.27
1	3/12/76	0	39	0.201	0.0688	4.905	15.66	34.51
1	3/12/76	0	45	0.204	0.0708	5.047	16.16	35.01
1	3/12/76	0	50	0.204	0.0708	5.047	16.58	35.43

SITE	DATE	HOUR	MIN	STAGE M	RUNOFF RATE CMS	RUNOFF INTENSITY MMPH	STORM RUNOFF MM	ANNUAL RUNOFF MM
1	3/12/76	0	55	0.201	0.0688	4.905	16.99	35.84
1	3/12/76	1	1	0.198	0.0668	4.764	17.48	36.32
1	3/12/76	1	3	0.195	0.0648	4.623	17.63	36.48
1	3/12/76	1	5	0.192	0.0629	4.481	17.79	36.63
1	3/12/76	1	7	0.189	0.0609	4.340	17.93	36.78
1	3/12/76	1	10	0.186	0.0589	4.199	18.15	36.99
1	3/12/76	1	12	0.183	0.0569	4.057	18.26	37.13
1	3/12/76	1	15	0.180	0.0552	3.938	18.48	37.33
1	3/12/76	1	18	0.177	0.0536	3.819	18.68	37.52
1	3/12/76	1	20	0.174	0.0519	3.700	18.80	37.65
1	3/12/76	1	23	0.171	0.0502	3.581	18.98	37.83
1	3/12/76	1	26	0.168	0.0486	3.462	19.16	38.01
1	3/12/76	1	29	0.165	0.0469	3.343	19.33	38.18
1	3/12/76	2	0	0.165	0.0469	3.343	21.06	39.90
1	3/12/76	2	5	0.165	0.0469	3.343	21.34	40.18
1	3/12/76	2	8	0.162	0.0452	3.224	21.50	40.35
1	3/12/76	2	11	0.158	0.0436	3.105	21.66	40.51
1	3/12/76	2	14	0.155	0.0419	2.986	21.81	40.66
1	3/12/76	2	16	0.152	0.0402	2.866	21.91	40.76
1	3/12/76	2	18	0.149	0.0389	2.770	22.00	40.85
1	3/12/76	2	20	0.146	0.0375	2.673	22.09	40.94
1	3/12/76	2	22	0.143	0.0361	2.576	22.18	41.03
1	3/12/76	2	24	0.140	0.0348	2.479	22.27	41.11
1	3/12/76	2	27	0.137	0.0334	2.382	22.39	41.23
1	3/12/76	2	29	0.134	0.0321	2.285	22.46	41.31
1	3/12/76	2	32	0.131	0.0307	2.188	22.58	41.42
1	3/12/76	2	34	0.128	0.0293	2.091	22.65	41.49
1	3/12/76	2	36	0.125	0.0280	1.994	22.72	41.56
1	3/12/76	2	38	0.122	0.0266	1.898	22.78	41.63
1	3/12/76	2	40	0.119	0.0256	1.822	22.84	41.69
1	3/12/76	2	43	0.116	0.0245	1.746	22.93	41.78
1	3/12/76	2	46	0.113	0.0234	1.670	23.02	41.86
1	3/12/76	2	50	0.110	0.0224	1.595	23.13	41.97
1	3/12/76	2	52	0.107	0.0213	1.519	23.18	42.02
1	3/12/76	2	57	0.104	0.0202	1.443	23.30	42.15
1	3/12/76	3	3	0.101	0.0192	1.368	23.44	42.29
1	3/12/76	3	8	0.098	0.0181	1.292	23.55	42.40
1	3/12/76	3	14	0.094	0.0171	1.216	23.68	42.52
1	3/12/76	3	20	0.091	0.0160	1.141	23.80	42.64
1	3/12/76	3	23	0.088	0.0152	1.083	23.85	42.70
1	3/12/76	3	28	0.085	0.0144	1.025	23.94	42.79
1	3/12/76	3	33	0.082	0.0136	0.967	24.02	42.87
1	3/12/76	3	37	0.079	0.0127	0.909	24.08	42.93
1	3/12/76	3	41	0.076	0.0119	0.851	24.14	42.99
1	3/12/76	3	45	0.073	0.0111	0.793	24.20	43.04
1	3/12/76	3	53	0.070	0.0103	0.735	24.30	43.15
1	3/12/76	4	0	0.067	0.0095	0.677	24.38	43.23
1	3/12/76	4	6	0.064	0.0087	0.619	24.45	43.29
1	3/12/76	4	15	0.061	0.0079	0.561	24.54	43.38
1	3/12/76	4	23	0.058	0.0073	0.523	24.61	43.45
1	3/12/76	4	37	0.055	0.0068	0.485	24.73	43.57
1	3/12/76	5	0	0.052	0.0063	0.447	24.90	43.78

TABLE D1- 1. CONTINUED

SITE	DATE	HOUR	MIN	STAGE M	RUNOFF RATE CMS	RUNOFF INTENSITY MMPH	STORM RUNOFF MM	ANNUAL RUNOFF MM
1	3/12/76	5	20	0.049	0.0057	0.409	25.05	43.89
1	3/12/76	5	40	0.046	0.0052	0.370	25.18	44.02
1	3/12/76	5	57	0.043	0.0047	0.332	25.28	44.12
1	3/12/76	6	10	0.040	0.0041	0.294	25.34	44.19
1	3/12/76	6	24	0.037	0.0036	0.256	25.41	44.25
1	3/12/76	6	40	0.034	0.0031	0.218	25.47	44.32
1	3/12/76	6	55	0.030	0.0025	0.180	25.52	44.37
1	3/12/76	7	15	0.027	0.0023	0.162	25.58	44.42
1	3/12/76	7	35	0.024	0.0020	0.144	25.63	44.48
1	3/12/76	8	30	0.021	0.0018	0.126	25.75	44.60
1	3/12/76	9	30	0.018	0.0015	0.108	25.87	44.72
1	3/12/76	10	30	0.018	0.0015	0.108	25.98	44.82
1	3/12/76	12	0	0.018	0.0015	0.108	26.14	44.98
1	3/12/76	15	0	0.018	0.0015	0.108	26.46	45.31
1	3/12/76	18	0	0.018	0.0015	0.108	26.78	45.63
1	3/12/76	19	0	0.009	0.0008	0.054	26.87	45.71
1	3/12/76	20	0	0.0	0.0	0.0	26.89	45.74
1	4/20/76	15	0	0.0	0.0	0.0	0.0	45.74
1	4/20/76	15	50	0.006	0.0005	0.036	0.01	45.75
1	4/20/76	16	35	0.006	0.0005	0.036	0.04	45.78
1	4/20/76	17	10	0.003	0.0003	0.018	0.06	45.80
1	4/20/76	17	20	0.003	0.0003	0.018	0.06	45.80
1	4/20/76	17	25	0.006	0.0005	0.036	0.06	45.80
1	4/20/76	18	0	0.009	0.0008	0.054	0.09	45.83
1	4/20/76	18	30	0.006	0.0005	0.036	0.11	45.85
1	4/20/76	19	0	0.003	0.0003	0.018	0.13	45.86
1	4/20/76	19	35	0.0	0.0	0.0	0.13	45.87
1	4/23/76	7	50	0.0	0.0	0.0	0.0	45.87
1	4/23/76	7	55	0.003	0.0003	0.018	0.00	45.87
1	4/23/76	8	0	0.006	0.0005	0.036	0.00	45.87
1	4/23/76	8	3	0.009	0.0008	0.054	0.01	45.87
1	4/23/76	8	6	0.009	0.0008	0.054	0.01	45.88
1	4/23/76	8	8	0.015	0.0013	0.090	0.01	45.88
1	4/23/76	8	15	0.012	0.0010	0.072	0.02	45.89
1	4/23/76	8	30	0.012	0.0010	0.072	0.04	45.91
1	4/23/76	8	35	0.015	0.0013	0.090	0.04	45.91
1	4/23/76	8	40	0.021	0.0018	0.126	0.05	45.92
1	4/23/76	8	45	0.027	0.0023	0.162	0.07	45.94
1	4/23/76	8	47	0.030	0.0025	0.180	0.07	45.94
1	4/23/76	8	50	0.037	0.0036	0.256	0.08	45.95
1	4/23/76	9	0	0.034	0.0031	0.218	0.12	45.99
1	4/23/76	9	5	0.030	0.0025	0.180	0.14	46.01
1	4/23/76	9	20	0.030	0.0025	0.180	0.18	46.05
1	4/23/76	9	27	0.034	0.0031	0.218	0.21	46.08
1	4/23/76	9	35	0.030	0.0025	0.180	0.23	46.10
1	4/23/76	10	10	0.030	0.0025	0.180	0.34	46.21
1	4/23/76	10	13	0.034	0.0031	0.218	0.35	46.22
1	4/23/76	10	20	0.037	0.0036	0.256	0.38	46.24
1	4/23/76	10	25	0.030	0.0025	0.180	0.39	46.26
1	4/23/76	10	27	0.027	0.0023	0.162	0.40	46.27
1	4/23/76	10	30	0.024	0.0020	0.144	0.41	46.28
1	4/23/76	10	35	0.021	0.0018	0.126	0.42	46.29
1	4/23/76	10	40	0.018	0.0015	0.108	0.43	46.30
1	4/23/76	10	50	0.015	0.0013	0.090	0.44	46.31
1	4/23/76	11	5	0.012	0.0010	0.072	0.46	46.33
1	4/23/76	11	15	0.009	0.0008	0.054	0.47	46.34
1	4/23/76	11	30	0.006	0.0005	0.036	0.49	46.36
1	4/23/76	11	50	0.0	0.0	0.0	0.49	46.36
1	4/23/76	17	35	0.0	0.0	0.0	0.0	46.36
1	4/23/76	17	36	0.024	0.0020	0.144	0.00	46.36
1	4/23/76	17	37	0.049	0.0057	0.409	0.01	46.37
1	4/23/76	17	40	0.040	0.0041	0.294	0.02	46.38
1	4/23/76	17	43	0.037	0.0036	0.256	0.04	46.40
1	4/23/76	17	45	0.034	0.0031	0.218	0.05	46.41
1	4/23/76	17	47	0.030	0.0025	0.180	0.05	46.41
1	4/23/76	17	54	0.030	0.0025	0.180	0.07	46.43
1	4/23/76	17	56	0.027	0.0023	0.162	0.08	46.44
1	4/23/76	18	0	0.024	0.0020	0.144	0.09	46.45
1	4/23/76	18	3	0.018	0.0015	0.108	0.09	46.46
1	4/23/76	18	8	0.012	0.0010	0.072	0.10	46.46
1	4/23/76	18	15	0.006	0.0005	0.036	0.11	46.47
1	4/23/76	18	25	0.003	0.0003	0.018	0.11	46.47
1	4/23/76	18	45	0.0	0.0	0.0	0.12	46.48
1	5/29/76	7	16	0.0	0.0	0.0	0.0	46.48
1	5/29/76	7	20	0.003	0.0003	0.018	0.00	46.48
1	5/29/76	7	24	0.012	0.0010	0.072	0.00	46.48
1	5/29/76	7	26	0.165	0.0469	3.343	0.06	46.54
1	5/29/76	7	28	0.244	0.1000	7.126	0.23	46.71
1	5/29/76	7	32	0.384	0.2535	18.075	1.07	47.55
1	5/29/76	7	36	0.360	0.2209	15.745	2.20	48.68
1	5/29/76	7	40	0.268	0.1215	8.660	3.02	49.49
1	5/29/76	7	42	0.229	0.0883	6.298	3.27	49.74
1	5/29/76	7	44	0.183	0.0569	4.057	3.44	49.91
1	5/29/76	7	46	0.152	0.0402	2.866	3.55	50.03
1	5/29/76	7	48	0.128	0.0293	2.091	3.64	50.11
1	5/29/76	7	50	0.110	0.0224	1.595	3.70	50.17
1	5/29/76	7	52	0.091	0.0160	1.141	3.74	50.22
1	5/29/76	7	54	0.076	0.0119	0.851	3.78	50.25
1	5/29/76	7	56	0.064	0.0087	0.619	3.80	50.28
1	5/29/76	7	58	0.055	0.0068	0.485	3.82	50.30
1	5/29/76	8	0	0.046	0.0052	0.370	3.83	50.31
1	5/29/76	8	2	0.037	0.0036	0.256	3.84	50.32
1	5/29/76	8	4	0.030	0.0025	0.180	3.85	50.33
1	5/29/76	8	8	0.021	0.0018	0.126	3.86	50.34
1	5/29/76	8	12	0.018	0.0015	0.108	3.87	50.35
1	5/29/76	8	16	0.012	0.0010	0.072	3.87	50.36

TABLE D1- 1. CONTINUED

SITE	DATE	HOUR	MIN	STAGE M	RUNOFF RATE CMS	RUNOFF INTENSITY MMPH	STORM RUNOFF MM	ANNUAL RUNOFF MM
1	5/29/76	8	20	0.009	0.0008	0.054	3.68	50.36
1	5/29/76	8	24	0.006	0.0005	0.036	3.68	50.36
1	5/29/76	8	32	0.003	0.0003	0.018	3.69	50.36
1	5/29/76	8	48	0.0	0.0	0.0	3.89	50.36
1	6/13/76	18	35	0.0	0.0	0.0	0.0	50.36
1	6/13/76	18	36	0.006	0.0005	0.036	0.00	50.37
1	6/13/76	18	37	0.018	0.0015	0.108	0.00	50.37
1	6/13/76	18	38	0.030	0.0025	0.180	0.00	50.37
1	6/13/76	18	39	0.043	0.0047	0.332	0.01	50.37
1	6/13/76	18	40	0.055	0.0068	0.485	0.01	50.38
1	6/13/76	18	41	0.067	0.0095	0.677	0.02	50.39
1	6/13/76	18	42	0.079	0.0127	0.909	0.04	50.40
1	6/13/76	18	43	0.091	0.0160	1.141	0.05	50.42
1	6/13/76	18	44	0.098	0.0181	1.292	0.08	50.44
1	6/13/76	18	45	0.104	0.0202	1.443	0.10	50.46
1	6/13/76	18	46	0.107	0.0213	1.519	0.12	50.49
1	6/13/76	18	47	0.104	0.0202	1.443	0.15	50.51
1	6/13/76	18	48	0.101	0.0192	1.368	0.17	50.54
1	6/13/76	18	49	0.094	0.0171	1.216	0.19	50.56
1	6/13/76	18	50	0.091	0.0160	1.141	0.21	50.58
1	6/13/76	18	51	0.088	0.0152	1.083	0.23	50.60
1	6/13/76	18	52	0.098	0.0181	1.292	0.25	50.62
1	6/13/76	18	53	0.134	0.0321	2.285	0.28	50.64
1	6/13/76	18	54	0.183	0.0569	4.057	0.33	50.70
1	6/13/76	18	55	0.219	0.0814	5.802	0.42	50.78
1	6/13/76	18	56	0.244	0.1000	7.126	0.52	50.89
1	6/13/76	18	57	0.253	0.1080	7.701	0.65	51.01
1	6/13/76	18	59	0.253	0.1080	7.701	0.90	51.27
1	6/13/76	19	0	0.247	0.1026	7.318	1.03	51.39
1	6/13/76	19	1	0.244	0.1000	7.126	1.15	51.51
1	6/13/76	19	2	0.238	0.0953	6.795	1.26	51.63
1	6/13/76	19	3	0.232	0.0907	6.464	1.38	51.74
1	6/13/76	19	4	0.226	0.0860	6.133	1.48	51.84
1	6/13/76	19	7	0.226	0.0860	6.133	1.79	52.15
1	6/13/76	19	8	0.223	0.0837	5.967	1.89	52.25
1	6/13/76	19	9	0.219	0.0814	5.802	1.99	52.35
1	6/13/76	19	10	0.216	0.0791	5.636	2.08	52.45
1	6/13/76	19	11	0.210	0.0748	5.329	2.17	52.54
1	6/13/76	19	12	0.201	0.0688	4.905	2.26	52.62
1	6/13/76	19	13	0.189	0.0609	4.340	2.33	52.70
1	6/13/76	19	14	0.183	0.0569	4.057	2.40	52.77
1	6/13/76	19	15	0.171	0.0502	3.581	2.47	52.83
1	6/13/76	19	16	0.158	0.0436	3.105	2.52	52.89
1	6/13/76	19	17	0.146	0.0375	2.673	2.57	52.94
1	6/13/76	19	18	0.134	0.0321	2.285	2.61	52.98
1	6/13/76	19	19	0.122	0.0266	1.898	2.65	53.01
1	6/13/76	19	20	0.116	0.0245	1.746	2.68	53.04
1	6/13/76	19	21	0.110	0.0224	1.595	2.71	53.07
1	6/13/76	19	22	0.104	0.0202	1.443	2.73	53.10
1	6/13/76	19	23	0.104	0.0202	1.443	2.76	53.12
1	6/13/76	19	24	0.107	0.0213	1.519	2.78	53.15
1	6/13/76	19	26	0.110	0.0224	1.595	2.83	53.20
1	6/13/76	19	30	0.107	0.0213	1.519	2.94	53.30
1	6/13/76	19	31	0.110	0.0224	1.595	2.96	53.33
1	6/13/76	19	32	0.119	0.0256	1.822	2.99	53.36
1	6/13/76	19	33	0.128	0.0293	2.091	3.02	53.39
1	6/13/76	19	34	0.140	0.0348	2.479	3.06	53.43
1	6/13/76	19	35	0.152	0.0402	2.866	3.11	53.47
1	6/13/76	19	36	0.168	0.0486	3.462	3.16	53.52
1	6/13/76	19	37	0.183	0.0569	4.057	3.22	53.59
1	6/13/76	19	38	0.195	0.0648	4.623	3.29	53.66
1	6/13/76	19	39	0.204	0.0708	5.047	3.37	53.74
1	6/13/76	19	40	0.210	0.0748	5.329	3.46	53.83
1	6/13/76	19	41	0.216	0.0791	5.636	3.55	53.92
1	6/13/76	19	42	0.219	0.0814	5.802	3.65	54.01
1	6/13/76	19	44	0.216	0.0791	5.636	3.84	54.20
1	6/13/76	19	45	0.213	0.0767	5.470	3.93	54.30
1	6/13/76	19	46	0.207	0.0728	5.188	4.02	54.38
1	6/13/76	19	47	0.201	0.0688	4.905	4.10	54.47
1	6/13/76	19	48	0.189	0.0609	4.340	4.18	54.55
1	6/13/76	19	49	0.180	0.0582	3.938	4.25	54.61
1	6/13/76	19	50	0.171	0.0502	3.581	4.31	54.66
1	6/13/76	19	51	0.162	0.0452	3.224	4.37	54.73
1	6/13/76	19	52	0.149	0.0389	2.770	4.42	54.78
1	6/13/76	19	53	0.140	0.0348	2.479	4.46	54.83
1	6/13/76	19	54	0.131	0.0307	2.188	4.50	54.87
1	6/13/76	19	55	0.119	0.0256	1.822	4.53	54.90
1	6/13/76	19	56	0.110	0.0224	1.595	4.56	54.93
1	6/13/76	19	57	0.101	0.0192	1.368	4.59	54.95
1	6/13/76	19	58	0.094	0.0171	1.216	4.61	54.97
1	6/13/76	19	59	0.088	0.0152	1.083	4.63	54.99
1	6/13/76	20	0	0.082	0.0136	0.967	4.65	55.01
1	6/13/76	20	1	0.073	0.0111	0.793	4.66	55.02
1	6/13/76	20	2	0.070	0.0103	0.735	4.67	55.04
1	6/13/76	20	3	0.064	0.0087	0.619	4.68	55.05
1	6/13/76	20	4	0.061	0.0079	0.561	4.69	55.06
1	6/13/76	20	5	0.058	0.0073	0.523	4.70	55.07
1	6/13/76	20	10	0.058	0.0073	0.523	4.75	55.11
1	6/13/76	20	11	0.061	0.0079	0.561	4.76	55.12
1	6/13/76	20	12	0.061	0.0079	0.561	4.77	55.13
1	6/13/76	20	13	0.064	0.0087	0.619	4.78	55.14
1	6/13/76	20	16	0.064	0.0087	0.619	4.81	55.17
1	6/13/76	20	17	0.067	0.0095	0.677	4.82	55.18
1	6/13/76	20	18	0.070	0.0103	0.735	4.83	55.19
1	6/13/76	20	19	0.076	0.0119	0.851	4.84	55.21
1	6/13/76	20	20	0.082	0.0136	0.967	4.86	55.22
1	6/13/76	20	21	0.088	0.0152	1.083	4.87	55.24
1	6/13/76	20	22	0.094	0.0171	1.216	4.89	55.26
1	6/13/76	20	23	0.104	0.0202	1.443	4.92	55.28
1	6/13/76	20	24	0.116	0.0245	1.746	4.94	55.31
1	6/13/76	20	25	0.131	0.0307	2.188	4.97	55.34
1	6/13/76	20	26	0.146	0.0375	2.673	5.02	55.38

TABLE D1- 1. CONCLUDED

SITE	DATE	HOUR	MIN	STAGE M	RUNOFF RATE CMS	RUNOFF INTENSITY MMPH	STORM RUNOFF MM	ANNUAL RUNOFF MM
1	6/13/76	20	27	0.158	0.0436	3.105	5.06	55.43
1	6/13/76	20	28	0.171	0.0502	3.581	5.12	55.48
1	6/13/76	20	29	0.180	0.0552	3.938	5.18	55.55
1	6/13/76	20	30	0.189	0.0609	4.340	5.25	55.62
1	6/13/76	20	31	0.195	0.0648	4.623	5.33	55.69
1	6/13/76	20	32	0.198	0.0668	4.764	5.40	55.77
1	6/13/76	20	33	0.201	0.0688	4.905	5.48	55.85
1	6/13/76	20	34	0.201	0.0688	4.905	5.57	55.93
1	6/13/76	20	35	0.198	0.0668	4.764	5.65	56.01
1	6/13/76	20	36	0.195	0.0648	4.623	5.72	56.09
1	6/13/76	20	37	0.192	0.0629	4.481	5.80	56.16
1	6/13/76	20	38	0.189	0.0609	4.340	5.87	56.24
1	6/13/76	20	39	0.183	0.0569	4.057	5.94	56.31
1	6/13/76	20	40	0.177	0.0536	3.819	6.01	56.37
1	6/13/76	20	41	0.171	0.0502	3.581	6.07	56.44
1	6/13/76	20	42	0.168	0.0486	3.462	6.13	56.49
1	6/13/76	20	43	0.165	0.0469	3.343	6.19	56.55
1	6/13/76	20	44	0.165	0.0469	3.343	6.24	56.61
1	6/13/76	20	45	0.162	0.0452	3.224	6.30	56.66
1	6/13/76	20	55	0.162	0.0452	3.224	6.83	57.20
1	6/13/76	20	57	0.158	0.0436	3.105	6.94	57.30
1	6/13/76	20	58	0.155	0.0419	2.986	6.99	57.35
1	6/13/76	20	59	0.152	0.0402	2.866	7.04	57.40
1	6/13/76	21	0	0.152	0.0402	2.866	7.09	57.45
1	6/13/76	21	1	0.146	0.0375	2.673	7.13	57.50
1	6/13/76	21	2	0.146	0.0375	2.673	7.18	57.54
1	6/13/76	21	3	0.140	0.0348	2.479	7.22	57.59
1	6/13/76	21	4	0.140	0.0348	2.479	7.26	57.63
1	6/13/76	21	6	0.134	0.0321	2.285	7.34	57.71
1	6/13/76	21	7	0.131	0.0307	2.188	7.38	57.74
1	6/13/76	21	8	0.131	0.0307	2.188	7.42	57.78
1	6/13/76	21	9	0.128	0.0293	2.091	7.45	57.82
1	6/13/76	21	15	0.125	0.0280	1.994	7.66	58.02
1	6/13/76	21	17	0.122	0.0266	1.898	7.72	58.08
1	6/13/76	21	18	0.119	0.0256	1.822	7.76	58.12
1	6/13/76	21	20	0.116	0.0245	1.746	7.81	58.17
1	6/13/76	21	23	0.110	0.0224	1.595	7.89	58.26
1	6/13/76	21	24	0.107	0.0213	1.519	7.92	58.28
1	6/13/76	21	25	0.104	0.0202	1.443	7.94	58.31
1	6/13/76	21	27	0.101	0.0192	1.368	7.99	58.36
1	6/13/76	21	28	0.098	0.0181	1.292	8.01	58.38
1	6/13/76	21	29	0.094	0.0171	1.216	8.03	58.40
1	6/13/76	21	30	0.088	0.0152	1.083	8.05	58.42
1	6/13/76	21	31	0.085	0.0144	1.025	8.07	58.44
1	6/13/76	21	32	0.079	0.0127	0.909	8.09	58.45
1	6/13/76	21	33	0.076	0.0119	0.851	8.10	58.47
1	6/13/76	21	34	0.070	0.0103	0.735	8.12	58.48
1	6/13/76	21	35	0.067	0.0095	0.677	8.13	58.49
1	6/13/76	21	36	0.061	0.0079	0.561	8.14	58.50
1	6/13/76	21	37	0.058	0.0073	0.523	8.15	58.51
1	6/13/76	21	38	0.052	0.0063	0.447	8.15	58.52
1	6/13/76	21	39	0.049	0.0057	0.409	8.16	58.53
1	6/13/76	21	40	0.046	0.0052	0.370	8.17	58.53
1	6/13/76	21	41	0.043	0.0047	0.332	8.17	58.54
1	6/13/76	21	42	0.040	0.0041	0.294	8.18	58.54
1	6/13/76	21	43	0.037	0.0036	0.256	8.18	58.55
1	6/13/76	21	44	0.034	0.0031	0.218	8.19	58.55
1	6/13/76	21	46	0.030	0.0025	0.180	8.19	58.56
1	6/13/76	21	47	0.027	0.0023	0.162	8.20	58.56
1	6/13/76	21	48	0.024	0.0020	0.144	8.20	58.56
1	6/13/76	21	50	0.021	0.0018	0.126	8.20	58.57
1	6/13/76	21	52	0.018	0.0015	0.108	8.21	58.57
1	6/13/76	21	55	0.015	0.0013	0.090	8.21	58.58
1	6/13/76	21	59	0.012	0.0010	0.072	8.22	58.58
1	6/13/76	22	3	0.009	0.0008	0.054	8.22	58.59
1	6/13/76	22	8	0.006	0.0005	0.036	8.23	58.59
1	6/13/76	22	13	0.003	0.0003	0.018	8.23	58.59
1	6/13/76	22	23	0.0	0.0	0.0	8.23	58.59

TABLE D1- 2. FOUR MILE CREEK WATERSHED RUNOFF DATA FOR 1976 SITE 2

SITE	DATE	HOUR	MIN	STAGE M	RUNOFF RATE CMS	RUNOFF INTENSITY MMPH	STORM RUNOFF MM	ANNUAL RUNOFF MM
2	2/27/76	9	0	0.0	0.0	0.0	0.0	0.0
2	2/27/76	13	10	0.094	0.0171	0.964	2.01	2.01
2	2/27/76	14	0	0.094	0.0171	0.964	2.61	2.61
2	2/27/76	15	30	0.064	0.0087	0.491	3.90	3.90
2	2/27/76	16	55	0.040	0.0041	0.233	4.42	4.42
2	2/27/76	18	2	0.024	0.0020	0.114	4.61	4.61
2	2/27/76	19	55	0.012	0.0010	0.057	4.77	4.77
2	2/27/76	22	0	0.0	0.0	0.0	4.83	4.83
2	2/28/76	10	0	0.0	0.0	0.0	0.0	4.83
2	2/28/76	13	0	0.015	0.0013	0.071	0.11	4.94
2	2/28/76	15	0	0.012	0.0010	0.057	0.24	5.07
2	2/28/76	16	20	0.012	0.0010	0.057	0.31	5.14
2	2/28/76	18	5	0.012	0.0010	0.057	0.41	5.24
2	2/28/76	19	0	0.0	0.0	0.0	0.44	5.27
2	3/ 7/76	10	0	0.0	0.0	0.0	0.0	5.27
2	3/ 7/76	13	30	0.012	0.0010	0.057	0.10	5.37
2	3/ 7/76	14	35	0.012	0.0010	0.057	0.16	5.43
2	3/ 7/76	15	35	0.015	0.0013	0.071	0.23	5.49
2	3/ 7/76	18	24	0.003	0.0003	0.014	0.35	5.61
2	3/ 7/76	19	0	0.0	0.0	0.0	0.35	5.62
2	3/ 9/76	9	0	0.0	0.0	0.0	0.0	5.62
2	3/ 9/76	11	48	0.043	0.0047	0.263	0.37	5.99
2	3/ 9/76	14	0	0.088	0.0152	0.858	1.60	7.22
2	3/ 9/76	15	25	0.067	0.0095	0.537	2.59	8.21
2	3/ 9/76	15	35	0.064	0.0087	0.491	2.68	8.29
2	3/ 9/76	15	45	0.061	0.0079	0.445	2.75	8.37
2	3/ 9/76	15	50	0.058	0.0073	0.415	2.79	8.41
2	3/ 9/76	15	58	0.055	0.0068	0.384	2.84	8.46
2	3/ 9/76	16	5	0.052	0.0063	0.354	2.89	8.50
2	3/ 9/76	16	15	0.049	0.0057	0.324	2.94	8.56
2	3/ 9/76	16	22	0.046	0.0052	0.294	2.98	8.60
2	3/ 9/76	16	33	0.043	0.0047	0.263	3.03	8.65
2	3/ 9/76	16	42	0.040	0.0041	0.233	3.07	8.68
2	3/ 9/76	16	55	0.037	0.0036	0.203	3.11	8.73
2	3/ 9/76	17	7	0.034	0.0031	0.173	3.15	8.77
2	3/ 9/76	17	22	0.030	0.0025	0.142	3.19	8.81
2	3/ 9/76	17	36	0.027	0.0023	0.128	3.22	8.84
2	3/ 9/76	17	45	0.024	0.0020	0.114	3.24	8.86
2	3/ 9/76	18	0	0.021	0.0018	0.100	3.27	8.89
2	3/ 9/76	18	25	0.018	0.0015	0.085	3.31	8.92
2	3/ 9/76	18	50	0.015	0.0013	0.071	3.34	8.96
2	3/ 9/76	19	15	0.012	0.0010	0.057	3.37	8.98
2	3/ 9/76	20	0	0.009	0.0008	0.043	3.40	9.02
2	3/ 9/76	21	0	0.006	0.0005	0.028	3.44	9.06
2	3/ 9/76	21	33	0.003	0.0003	0.014	3.45	9.07
2	3/ 9/76	22	0	0.0	0.0	0.0	3.45	9.07
2	3/10/76	10	0	0.0	0.0	0.0	3.45	9.07
2	3/10/76	10	17	0.003	0.0003	0.014	3.46	9.07
2	3/10/76	10	40	0.006	0.0005	0.028	3.46	9.08
2	3/10/76	10	55	0.009	0.0008	0.043	3.47	9.09
2	3/10/76	11	12	0.012	0.0010	0.057	3.49	9.10
2	3/10/76	11	26	0.015	0.0013	0.071	3.50	9.12
2	3/10/76	12	0	0.018	0.0015	0.085	3.55	9.16
2	3/10/76	12	15	0.021	0.0018	0.100	3.57	9.19
2	3/10/76	12	30	0.024	0.0020	0.114	3.60	9.21
2	3/10/76	12	55	0.027	0.0023	0.128	3.65	9.26
2	3/10/76	13	15	0.030	0.0025	0.142	3.69	9.31
2	3/10/76	13	30	0.034	0.0031	0.173	3.73	9.35
2	3/10/76	14	0	0.037	0.0036	0.203	3.83	9.44
2	3/10/76	15	0	0.040	0.0041	0.233	4.04	9.66
2	3/10/76	17	0	0.037	0.0036	0.203	4.48	10.10
2	3/10/76	17	25	0.034	0.0031	0.173	4.56	10.17
2	3/10/76	17	40	0.030	0.0025	0.142	4.60	10.21
2	3/10/76	17	53	0.027	0.0023	0.128	4.63	10.24
2	3/10/76	17	57	0.024	0.0020	0.114	4.63	10.25
2	3/10/76	18	1	0.021	0.0018	0.100	4.64	10.26
2	3/10/76	18	5	0.018	0.0015	0.085	4.65	10.26
2	3/10/76	18	10	0.015	0.0013	0.071	4.65	10.27
2	3/10/76	18	13	0.012	0.0010	0.057	4.66	10.27
2	3/10/76	18	23	0.012	0.0010	0.057	4.67	10.28
2	3/10/76	18	24	0.015	0.0013	0.071	4.67	10.29
2	3/10/76	18	25	0.018	0.0015	0.085	4.67	10.29
2	3/10/76	18	27	0.021	0.0018	0.100	4.67	10.29
2	3/10/76	18	28	0.024	0.0020	0.114	4.67	10.29
2	3/10/76	18	30	0.027	0.0023	0.128	4.68	10.30
2	3/10/76	18	32	0.030	0.0025	0.142	4.68	10.30
2	3/10/76	18	34	0.034	0.0031	0.173	4.69	10.31
2	3/10/76	18	37	0.037	0.0036	0.203	4.70	10.31
2	3/10/76	18	43	0.040	0.0041	0.233	4.72	10.34
2	3/10/76	19	30	0.043	0.0047	0.263	4.91	10.53
2	3/10/76	20	0	0.040	0.0041	0.233	5.04	10.65
2	3/10/76	20	20	0.037	0.0036	0.203	5.11	10.73
2	3/10/76	20	40	0.034	0.0031	0.173	5.17	10.79
2	3/10/76	20	52	0.030	0.0025	0.142	5.20	10.82
2	3/10/76	21	25	0.027	0.0023	0.128	5.28	10.90
2	3/10/76	22	0	0.024	0.0020	0.114	5.36	10.97
2	3/10/76	23	0	0.021	0.0018	0.100	5.46	11.07
2	3/10/76	24	0	0.021	0.0018	0.100	5.56	11.17
2	3/11/76	1	0	0.018	0.0015	0.085	5.65	11.27
2	3/11/76	2	15	0.015	0.0013	0.071	5.75	11.36
2	3/11/76	4	0	0.012	0.0010	0.057	5.86	11.48
2	3/11/76	9	0	0.009	0.0008	0.043	6.11	11.73
2	3/11/76	9	45	0.006	0.0005	0.028	6.13	11.75
2	3/11/76	9	48	0.003	0.0003	0.014	6.14	11.75
2	3/11/76	9	52	0.0	0.0	0.0	6.14	11.75
2	3/11/76	11	0	0.0	0.0	0.0	6.14	11.75
2	3/11/76	11	15	0.003	0.0003	0.014	6.14	11.76
2	3/11/76	11	36	0.006	0.0005	0.028	6.15	11.76

TABLE DI- 2. CONTINUED

SITE	DATE	HOUR	MIN	STAGE M	RUNOFF RATE CMS	RUNOFF INTENSITY MMPH	STORM RUNOFF MM	ANNUAL RUNOFF MM
2	3/11/76	11	48	0.009	0.0008	0.043	6.15	11.77
2	3/11/76	12	0	0.012	0.0010	0.057	6.16	11.78
2	3/11/76	12	30	0.015	0.0013	0.071	6.19	11.81
2	3/11/76	12	36	0.018	0.0015	0.085	6.20	11.82
2	3/11/76	12	48	0.021	0.0018	0.100	6.22	11.84
2	3/11/76	12	55	0.024	0.0020	0.114	6.23	11.85
2	3/11/76	13	8	0.027	0.0023	0.128	6.26	11.88
2	3/11/76	13	15	0.030	0.0025	0.142	6.27	11.89
2	3/11/76	13	30	0.034	0.0031	0.173	6.31	11.93
2	3/11/76	15	35	0.037	0.0036	0.203	6.71	12.32
2	3/11/76	18	0	0.040	0.0041	0.233	7.23	12.85
2	3/11/76	18	55	0.043	0.0047	0.263	7.46	13.08
2	3/11/76	19	10	0.046	0.0052	0.294	7.53	13.15
2	3/11/76	19	25	0.049	0.0057	0.324	7.61	13.22
2	3/11/76	19	45	0.052	0.0063	0.354	7.72	13.34
2	3/11/76	19	54	0.055	0.0068	0.384	7.78	13.39
2	3/11/76	20	3	0.058	0.0073	0.415	7.84	13.45
2	3/11/76	20	6	0.061	0.0079	0.445	7.86	13.47
2	3/11/76	20	25	0.061	0.0079	0.445	8.00	13.61
2	3/11/76	20	34	0.064	0.0087	0.491	8.07	13.69
2	3/11/76	20	37	0.067	0.0095	0.537	8.09	13.71
2	3/11/76	20	40	0.070	0.0103	0.583	8.12	13.74
2	3/11/76	20	43	0.073	0.0111	0.629	8.15	13.77
2	3/11/76	20	46	0.076	0.0119	0.675	8.18	13.80
2	3/11/76	20	48	0.079	0.0127	0.720	8.21	13.82
2	3/11/76	20	50	0.082	0.0136	0.766	8.23	13.85
2	3/11/76	20	52	0.085	0.0144	0.812	8.26	13.88
2	3/11/76	20	55	0.088	0.0152	0.858	8.30	13.92
2	3/11/76	20	59	0.091	0.0160	0.904	8.36	13.98
2	3/11/76	21	19	0.088	0.0152	0.858	8.65	14.27
2	3/11/76	21	26	0.085	0.0144	0.812	8.75	14.37
2	3/11/76	21	35	0.082	0.0136	0.766	8.87	14.49
2	3/11/76	21	45	0.079	0.0127	0.720	8.99	14.61
2	3/11/76	21	53	0.076	0.0119	0.675	9.09	14.70
2	3/11/76	21	59	0.073	0.0111	0.629	9.15	14.77
2	3/11/76	22	12	0.070	0.0103	0.583	9.28	14.90
2	3/11/76	22	25	0.073	0.0111	0.629	9.41	15.03
2	3/11/76	22	28	0.076	0.0119	0.675	9.45	15.06
2	3/11/76	22	31	0.079	0.0127	0.720	9.48	15.10
2	3/11/76	22	32	0.082	0.0136	0.766	9.49	15.11
2	3/11/76	22	34	0.085	0.0144	0.812	9.52	15.14
2	3/11/76	22	36	0.088	0.0152	0.858	9.55	15.16
2	3/11/76	22	38	0.091	0.0160	0.904	9.58	15.19
2	3/11/76	22	40	0.094	0.0171	0.964	9.61	15.23
2	3/11/76	22	42	0.098	0.0181	1.024	9.64	15.26
2	3/11/76	22	44	0.101	0.0192	1.084	9.68	15.29
2	3/11/76	22	45	0.104	0.0202	1.144	9.69	15.31
2	3/11/76	22	46	0.107	0.0213	1.204	9.71	15.33
2	3/11/76	22	47	0.110	0.0224	1.264	9.73	15.35
2	3/11/76	22	48	0.113	0.0234	1.324	9.76	15.37
2	3/11/76	22	49	0.116	0.0245	1.384	9.78	15.40
2	3/11/76	22	50	0.119	0.0256	1.444	9.80	15.42
2	3/11/76	22	51	0.122	0.0266	1.504	9.83	15.44
2	3/11/76	22	52	0.125	0.0280	1.581	9.85	15.47
2	3/11/76	22	53	0.128	0.0293	1.658	9.86	15.50
2	3/11/76	22	54	0.131	0.0307	1.735	9.91	15.53
2	3/11/76	22	55	0.134	0.0321	1.812	9.94	15.55
2	3/11/76	22	56	0.137	0.0334	1.888	9.97	15.59
2	3/11/76	22	57	0.140	0.0348	1.965	10.00	15.62
2	3/11/76	22	58	0.143	0.0361	2.042	10.03	15.65
2	3/11/76	22	59	0.146	0.0375	2.119	10.07	15.69
2	3/11/76	23	0	0.149	0.0389	2.196	10.10	15.72
2	3/11/76	23	2	0.152	0.0402	2.272	10.18	15.80
2	3/11/76	23	5	0.155	0.0419	2.367	10.29	15.91
2	3/11/76	23	7	0.158	0.0436	2.461	10.38	15.99
2	3/11/76	23	9	0.162	0.0452	2.556	10.46	16.08
2	3/11/76	23	11	0.165	0.0469	2.650	10.55	16.16
2	3/11/76	23	13	0.168	0.0486	2.745	10.64	16.25
2	3/11/76	23	25	0.171	0.0502	2.839	11.19	16.81
2	3/11/76	23	45	0.174	0.0519	2.933	12.16	17.77
2	3/11/76	24	0	0.177	0.0536	3.028	12.90	18.52
2	3/12/76	0	8	0.180	0.0552	3.122	13.31	18.93
2	3/12/76	0	11	0.183	0.0569	3.217	13.47	19.09
2	3/12/76	0	13	0.186	0.0585	3.329	13.58	19.20
2	3/12/76	0	15	0.189	0.0609	3.441	13.69	19.31
2	3/12/76	0	18	0.192	0.0629	3.553	13.87	19.48
2	3/12/76	0	20	0.196	0.0648	3.665	13.99	19.60
2	3/12/76	0	22	0.198	0.0668	3.777	14.11	19.73
2	3/12/76	0	24	0.201	0.0688	3.889	14.24	19.86
2	3/12/76	0	25	0.204	0.0708	4.001	14.30	19.92
2	3/12/76	0	26	0.207	0.0728	4.113	14.37	19.99
2	3/12/76	0	27	0.210	0.0748	4.225	14.44	20.06
2	3/12/76	0	28	0.213	0.0767	4.337	14.51	20.13
2	3/12/76	0	30	0.216	0.0791	4.468	14.66	20.28
2	3/12/76	0	34	0.219	0.0814	4.599	14.96	20.58
2	3/12/76	0	36	0.223	0.0837	4.731	15.04	20.66
2	3/12/76	0	37	0.226	0.0860	4.862	15.20	20.82
2	3/12/76	0	39	0.229	0.0883	4.993	15.36	20.98
2	3/12/76	0	40	0.232	0.0907	5.124	15.48	21.07
2	3/12/76	0	42	0.235	0.0930	5.255	15.62	21.24
2	3/12/76	0	44	0.238	0.0953	5.387	15.80	21.42
2	3/12/76	0	45	0.241	0.0976	5.518	15.89	21.51
2	3/12/76	0	46	0.244	0.1000	5.649	15.98	21.60
2	3/12/76	0	47	0.247	0.1026	5.801	16.08	21.69
2	3/12/76	0	48	0.250	0.1053	5.983	16.18	21.79
2	3/12/76	0	49	0.247	0.1026	5.801	16.27	21.89
2	3/12/76	0	50	0.244	0.1000	5.649	16.37	21.99
2	3/12/76	0	51	0.241	0.0976	5.518	16.46	22.08
2	3/12/76	0	52	0.238	0.0953	5.387	16.55	22.17
2	3/12/76	0	55	0.235	0.0930	5.255	16.82	22.44
2	3/12/76	0	59	0.232	0.0907	5.124	17.16	22.78
2	3/12/76	1	0	0.229	0.0883	4.993	17.25	22.87
2	3/12/76	1	1	0.226	0.0860	4.862	17.33	22.96
2	3/12/76	1	3	0.223	0.0837	4.731	17.49	23.11

TABLE D1- 2. CONTINUED

SITE	DATE	HOUR	MIN	STAGE M	RUNOFF RATE CMS	RUNOFF INTENSITY MMPH	STORM RUNOFF MM	ANNUAL RUNOFF MM
2	3/12/76	1	5	0.219	0.0814	4.599	17.65	23.26
2	3/12/76	1	6	0.216	0.0791	4.468	17.72	23.34
2	3/12/76	1	7	0.213	0.0767	4.337	17.80	23.41
2	3/12/76	1	9	0.210	0.0748	4.225	17.94	23.56
2	3/12/76	1	10	0.207	0.0728	4.113	18.01	23.62
2	3/12/76	1	11	0.204	0.0708	4.001	18.08	23.69
2	3/12/76	1	12	0.201	0.0688	3.889	18.14	23.76
2	3/12/76	1	13	0.198	0.0668	3.777	18.20	23.82
2	3/12/76	1	14	0.195	0.0648	3.665	18.27	23.88
2	3/12/76	1	15	0.192	0.0629	3.553	18.33	23.94
2	3/12/76	1	16	0.189	0.0609	3.441	18.39	24.00
2	3/12/76	1	18	0.186	0.0589	3.329	18.50	24.12
2	3/12/76	1	20	0.183	0.0569	3.217	18.61	24.22
2	3/12/76	1	23	0.180	0.0552	3.122	18.77	24.38
2	3/12/76	1	27	0.177	0.0536	3.028	18.97	24.59
2	3/12/76	1	31	0.174	0.0519	2.933	19.17	24.79
2	3/12/76	1	36	0.171	0.0502	2.839	19.41	25.03
2	3/12/76	1	40	0.168	0.0486	2.745	19.60	25.21
2	3/12/76	1	42	0.171	0.0502	2.839	19.69	25.31
2	3/12/76	1	44	0.174	0.0519	2.933	19.79	25.40
2	3/12/76	1	45	0.177	0.0536	3.028	19.83	25.45
2	3/12/76	1	48	0.180	0.0552	3.122	19.99	25.61
2	3/12/76	1	50	0.183	0.0569	3.217	20.09	25.71
2	3/12/76	1	55	0.186	0.0589	3.329	20.37	25.98
2	3/12/76	2	0	0.189	0.0609	3.441	20.65	26.27
2	3/12/76	2	3	0.186	0.0589	3.329	20.82	26.44
2	3/12/76	2	5	0.183	0.0569	3.217	20.93	26.54
2	3/12/76	2	8	0.180	0.0552	3.122	21.09	26.70
2	3/12/76	2	10	0.177	0.0536	3.028	21.19	26.81
2	3/12/76	2	13	0.174	0.0519	2.933	21.34	26.95
2	3/12/76	2	15	0.171	0.0502	2.839	21.43	27.05
2	3/12/76	2	17	0.168	0.0486	2.745	21.53	27.14
2	3/12/76	2	19	0.165	0.0469	2.650	21.62	27.23
2	3/12/76	2	21	0.162	0.0452	2.556	21.70	27.32
2	3/12/76	2	22	0.158	0.0436	2.461	21.75	27.36
2	3/12/76	2	23	0.155	0.0419	2.367	21.79	27.40
2	3/12/76	2	24	0.152	0.0402	2.272	21.82	27.44
2	3/12/76	2	25	0.149	0.0389	2.196	21.86	27.48
2	3/12/76	2	26	0.146	0.0375	2.119	21.90	27.51
2	3/12/76	2	27	0.140	0.0348	1.965	21.93	27.55
2	3/12/76	2	28	0.134	0.0321	1.812	21.96	27.58
2	3/12/76	2	30	0.131	0.0307	1.735	22.02	27.64
2	3/12/76	2	31	0.128	0.0293	1.658	22.05	27.67
2	3/12/76	2	33	0.125	0.0280	1.581	22.10	27.72
2	3/12/76	2	35	0.122	0.0266	1.504	22.16	27.77
2	3/12/76	2	37	0.119	0.0256	1.444	22.20	27.82
2	3/12/76	2	38	0.116	0.0245	1.384	22.23	27.85
2	3/12/76	2	40	0.113	0.0234	1.324	22.27	27.89
2	3/12/76	2	42	0.110	0.0224	1.264	22.32	27.93
2	3/12/76	2	44	0.107	0.0213	1.204	22.36	27.97
2	3/12/76	2	47	0.104	0.0202	1.144	22.42	28.03
2	3/12/76	2	50	0.101	0.0192	1.084	22.47	28.09
2	3/12/76	2	52	0.098	0.0181	1.024	22.51	28.12
2	3/12/76	2	55	0.094	0.0171	0.964	22.56	28.17
2	3/12/76	3	5	0.091	0.0160	0.904	22.71	28.33
2	3/12/76	3	15	0.088	0.0152	0.858	22.86	28.48
2	3/12/76	3	19	0.085	0.0144	0.812	22.91	28.53
2	3/12/76	3	32	0.082	0.0136	0.766	23.09	28.70
2	3/12/76	3	35	0.079	0.0127	0.720	23.12	28.74
2	3/12/76	3	40	0.076	0.0119	0.675	23.18	28.80
2	3/12/76	3	45	0.073	0.0111	0.629	23.24	28.85
2	3/12/76	3	55	0.070	0.0103	0.583	23.34	28.95
2	3/12/76	4	0	0.067	0.0095	0.537	23.38	29.00
2	3/12/76	4	4	0.064	0.0087	0.491	23.42	29.03
2	3/12/76	4	10	0.061	0.0079	0.445	23.46	29.08
2	3/12/76	4	30	0.058	0.0073	0.415	23.61	29.22
2	3/12/76	4	45	0.055	0.0068	0.384	23.71	29.32
2	3/12/76	5	0	0.058	0.0073	0.415	23.81	29.42
2	3/12/76	5	15	0.055	0.0068	0.384	23.91	29.52
2	3/12/76	5	25	0.052	0.0063	0.384	23.97	29.59
2	3/12/76	5	30	0.049	0.0057	0.324	24.00	29.61
2	3/12/76	5	50	0.046	0.0052	0.294	24.10	29.72
2	3/12/76	7	0	0.034	0.0031	0.173	24.37	29.99
2	3/12/76	8	0	0.027	0.0023	0.128	24.52	30.14
2	3/12/76	11	0	0.018	0.0015	0.085	24.84	30.46
2	3/12/76	12	0	0.015	0.0013	0.071	24.92	30.54
2	3/12/76	13	0	0.012	0.0010	0.057	24.99	30.60
2	3/12/76	14	0	0.009	0.0008	0.043	25.03	30.65
2	3/12/76	15	0	0.006	0.0005	0.028	25.07	30.69
2	3/12/76	16	0	0.003	0.0003	0.014	25.09	30.71
2	3/12/76	17	0	0.0	0.0	0.0	25.10	30.72
2	4/16/76	22	36	0.0	0.0	0.0	0.0	30.72
2	4/16/76	22	40	0.006	0.0005	0.028	0.00	30.72
2	4/16/76	23	5	0.009	0.0008	0.043	0.02	30.73
2	4/16/76	23	45	0.006	0.0005	0.028	0.04	30.76
2	4/16/76	23	54	0.006	0.0005	0.028	0.04	30.76
2	4/16/76	24	0	0.009	0.0008	0.043	0.05	30.76
2	4/17/76	0	8	0.012	0.0010	0.057	0.05	30.77
2	4/17/76	0	10	0.021	0.0018	0.100	0.06	30.77
2	4/17/76	0	12	0.034	0.0031	0.173	0.04	30.78
2	4/17/76	0	13	0.043	0.0047	0.263	0.06	30.78
2	4/17/76	0	14	0.049	0.0057	0.324	0.07	30.79
2	4/17/76	0	15	0.055	0.0068	0.384	0.08	30.79
2	4/17/76	0	16	0.064	0.0087	0.491	0.08	30.80
2	4/17/76	0	17	0.085	0.0144	0.812	0.09	30.81
2	4/17/76	0	18	0.107	0.0213	1.204	0.11	30.83
2	4/17/76	0	19	0.134	0.0321	1.812	0.14	30.86
2	4/17/76	0	20	0.143	0.0361	2.042	0.17	30.88
2	4/17/76	0	21	0.149	0.0389	2.196	0.20	30.92
2	4/17/76	0	23	0.149	0.0389	2.196	0.28	30.99
2	4/17/76	0	24	0.152	0.0402	2.272	0.31	31.03
2	4/17/76	0	26	0.158	0.0436	2.461	0.36	31.07

TABLE D1- 2. CONTINUED

SITE	DATE	HOUR	MIN	STAGE M	RUNOFF RATE CMS	RUNOFF INTENSITY MMPH	STORM RUNOFF MM	ANNUAL RUNOFF MM
2	4/17/76	0	26	0.158	0.0436	2.461	0.39	31.11
2	4/17/76	0	27	0.155	0.0419	2.367	0.43	31.15
2	4/17/76	0	28	0.152	0.0402	2.272	0.47	31.19
2	4/17/76	0	29	0.149	0.0389	2.196	0.51	31.23
2	4/17/76	0	30	0.143	0.0361	2.042	0.55	31.26
2	4/17/76	0	31	0.137	0.0334	1.888	0.58	31.29
2	4/17/76	0	32	0.131	0.0307	1.735	0.61	31.32
2	4/17/76	0	33	0.125	0.0280	1.581	0.64	31.35
2	4/17/76	0	34	0.119	0.0256	1.444	0.66	31.38
2	4/17/76	0	35	0.113	0.0234	1.324	0.68	31.40
2	4/17/76	0	36	0.107	0.0213	1.204	0.71	31.42
2	4/17/76	0	37	0.098	0.0181	1.024	0.72	31.44
2	4/17/76	0	38	0.094	0.0171	0.964	0.74	31.46
2	4/17/76	0	39	0.091	0.0160	0.904	0.76	31.47
2	4/17/76	0	40	0.091	0.0160	0.904	0.77	31.49
2	4/17/76	0	41	0.088	0.0152	0.858	0.79	31.50
2	4/17/76	0	42	0.085	0.0144	0.812	0.80	31.52
2	4/17/76	0	43	0.082	0.0136	0.766	0.81	31.53
2	4/17/76	0	44	0.079	0.0127	0.720	0.83	31.54
2	4/17/76	0	45	0.073	0.0111	0.629	0.84	31.55
2	4/17/76	0	46	0.067	0.0095	0.537	0.85	31.56
2	4/17/76	0	47	0.061	0.0079	0.445	0.85	31.57
2	4/17/76	0	48	0.055	0.0068	0.384	0.86	31.58
2	4/17/76	0	49	0.052	0.0063	0.354	0.87	31.58
2	4/17/76	0	50	0.049	0.0057	0.324	0.87	31.59
2	4/17/76	0	51	0.046	0.0052	0.294	0.88	31.59
2	4/17/76	0	55	0.043	0.0047	0.263	0.90	31.61
2	4/17/76	0	59	0.040	0.0041	0.233	0.91	31.63
2	4/17/76	1	2	0.037	0.0036	0.203	0.92	31.64
2	4/17/76	1	4	0.034	0.0031	0.173	0.93	31.65
2	4/17/76	1	7	0.030	0.0025	0.142	0.94	31.65
2	4/17/76	1	11	0.027	0.0023	0.128	0.95	31.66
2	4/17/76	1	16	0.024	0.0020	0.114	0.96	31.67
2	4/17/76	1	22	0.021	0.0018	0.100	0.97	31.68
2	4/17/76	1	33	0.018	0.0015	0.085	0.99	31.70
2	4/17/76	1	42	0.015	0.0013	0.071	1.00	31.71
2	4/17/76	1	52	0.012	0.0010	0.057	1.01	31.72
2	4/17/76	3	25	0.012	0.0010	0.057	1.10	31.81
2	4/17/76	3	36	0.015	0.0013	0.071	1.11	31.82
2	4/17/76	3	57	0.015	0.0013	0.071	1.13	31.85
2	4/17/76	4	4	0.018	0.0015	0.085	1.14	31.86
2	4/17/76	4	10	0.021	0.0018	0.100	1.15	31.87
2	4/17/76	4	15	0.024	0.0020	0.114	1.16	31.88
2	4/17/76	4	21	0.027	0.0023	0.128	1.17	31.89
2	4/17/76	4	26	0.030	0.0025	0.142	1.18	31.90
2	4/17/76	4	32	0.034	0.0031	0.173	1.20	31.91
2	4/17/76	4	38	0.037	0.0036	0.203	1.22	31.93
2	4/17/76	4	44	0.037	0.0036	0.203	1.24	31.95
2	4/17/76	4	48	0.034	0.0031	0.173	1.25	31.97
2	4/17/76	4	52	0.030	0.0025	0.142	1.26	31.98
2	4/17/76	4	55	0.027	0.0023	0.128	1.27	31.98
2	4/17/76	4	58	0.024	0.0020	0.114	1.27	31.99
2	4/17/76	5	1	0.021	0.0018	0.100	1.28	31.99
2	4/17/76	5	5	0.018	0.0015	0.085	1.29	32.00
2	4/17/76	5	10	0.015	0.0013	0.071	1.29	32.01
2	4/17/76	5	15	0.012	0.0010	0.057	1.30	32.01
2	4/17/76	5	21	0.009	0.0008	0.043	1.30	32.02
2	4/17/76	5	30	0.006	0.0005	0.028	1.31	32.02
2	4/17/76	5	41	0.003	0.0003	0.014	1.31	32.03
2	4/17/76	5	52	0.0	0.0	0.0	1.31	32.03
2	4/20/76	15	45	0.0	0.0	0.0	0.0	32.03
2	4/20/76	15	48	0.003	0.0003	0.014	0.00	32.03
2	4/20/76	15	50	0.006	0.0005	0.028	0.00	32.03
2	4/20/76	15	51	0.009	0.0008	0.043	0.00	32.03
2	4/20/76	15	52	0.012	0.0010	0.057	0.00	32.03
2	4/20/76	15	55	0.015	0.0013	0.071	0.01	32.03
2	4/20/76	15	58	0.018	0.0015	0.085	0.01	32.04
2	4/20/76	16	1	0.021	0.0018	0.100	0.01	32.04
2	4/20/76	16	7	0.024	0.0020	0.114	0.02	32.05
2	4/20/76	16	15	0.027	0.0023	0.128	0.04	32.07
2	4/20/76	16	25	0.027	0.0023	0.128	0.06	32.09
2	4/20/76	16	35	0.030	0.0025	0.142	0.08	32.11
2	4/20/76	16	45	0.030	0.0025	0.142	0.11	32.14
2	4/20/76	16	50	0.027	0.0023	0.128	0.12	32.15
2	4/20/76	16	55	0.024	0.0020	0.114	0.13	32.16
2	4/20/76	17	0	0.021	0.0018	0.100	0.14	32.17
2	4/20/76	17	8	0.018	0.0015	0.085	0.15	32.18
2	4/20/76	17	15	0.015	0.0013	0.071	0.16	32.19
2	4/20/76	17	20	0.015	0.0013	0.071	0.17	32.19
2	4/20/76	17	28	0.018	0.0015	0.085	0.18	32.21
2	4/20/76	17	31	0.021	0.0018	0.100	0.18	32.21
2	4/20/76	17	33	0.024	0.0020	0.114	0.19	32.21
2	4/20/76	17	35	0.027	0.0023	0.128	0.19	32.22
2	4/20/76	17	37	0.030	0.0025	0.142	0.19	32.22
2	4/20/76	17	39	0.034	0.0031	0.173	0.20	32.23
2	4/20/76	17	41	0.037	0.0036	0.203	0.21	32.23
2	4/20/76	17	43	0.040	0.0041	0.233	0.21	32.24
2	4/20/76	17	45	0.043	0.0047	0.263	0.22	32.25
2	4/20/76	17	50	0.046	0.0052	0.294	0.24	32.27
2	4/20/76	17	52	0.049	0.0057	0.324	0.25	32.28
2	4/20/76	17	54	0.052	0.0063	0.354	0.27	32.29
2	4/20/76	17	55	0.055	0.0068	0.384	0.27	32.30
2	4/20/76	17	58	0.058	0.0073	0.415	0.29	32.32
2	4/20/76	18	9	0.058	0.0073	0.415	0.37	32.40
2	4/20/76	18	15	0.055	0.0068	0.384	0.41	32.44
2	4/20/76	18	20	0.052	0.0063	0.354	0.44	32.47
2	4/20/76	18	23	0.058	0.0073	0.415	0.46	32.49
2	4/20/76	18	28	0.046	0.0052	0.294	0.49	32.52
2	4/20/76	18	30	0.043	0.0047	0.263	0.50	32.52
2	4/20/76	18	35	0.040	0.0041	0.233	0.52	32.55
2	4/20/76	18	38	0.037	0.0036	0.203	0.53	32.56
2	4/20/76	18	41	0.034	0.0031	0.173	0.54	32.57

TABLE D1- 2. CONTINUED

SITE	DATE	HOUR	MIN	STAGE M	RUNOFF RATE CMS	RUNOFF INTENSITY MMPH	STORM RUNOFF MM	ANNUAL RUNOFF MM
2	4/20/76	18	44	0.030	0.0025	0.142	0.55	32.57
2	4/20/76	18	46	0.027	0.0023	0.128	0.55	32.58
2	4/20/76	18	49	0.024	0.0020	0.114	0.56	32.58
2	4/20/76	18	55	0.021	0.0018	0.100	0.57	32.59
2	4/20/76	19	0	0.018	0.0015	0.085	0.57	32.60
2	4/20/76	19	8	0.015	0.0013	0.071	0.58	32.61
2	4/20/76	19	16	0.012	0.0010	0.057	0.59	32.62
2	4/20/76	19	25	0.009	0.0008	0.043	0.60	32.63
2	4/20/76	19	35	0.006	0.0005	0.028	0.61	32.63
2	4/20/76	20	15	0.006	0.0005	0.028	0.63	32.65
2	4/20/76	21	0	0.003	0.0003	0.014	0.64	32.67
2	4/20/76	21	15	0.0	0.0	0.0	0.64	32.67
2	4/23/76	8	10	0.0	0.0	0.0	0.0	32.67
2	4/23/76	8	11	0.043	0.0047	0.263	0.00	32.67
2	4/23/76	8	12	0.058	0.0073	0.415	0.01	32.68
2	4/23/76	8	13	0.076	0.0119	0.675	0.02	32.69
2	4/23/76	8	14	0.104	0.0202	1.144	0.03	32.70
2	4/23/76	8	15	0.116	0.0245	1.384	0.05	32.72
2	4/23/76	8	16	0.125	0.0280	1.581	0.08	32.75
2	4/23/76	8	17	0.131	0.0307	1.735	0.11	32.78
2	4/23/76	8	18	0.134	0.0321	1.812	0.14	32.81
2	4/23/76	8	20	0.137	0.0334	1.888	0.20	32.87
2	4/23/76	8	22	0.137	0.0334	1.888	0.26	32.93
2	4/23/76	8	23	0.134	0.0321	1.812	0.29	32.96
2	4/23/76	8	24	0.131	0.0307	1.735	0.32	32.99
2	4/23/76	8	25	0.128	0.0293	1.658	0.35	33.02
2	4/23/76	8	26	0.122	0.0266	1.504	0.37	33.05
2	4/23/76	8	27	0.119	0.0256	1.444	0.40	33.07
2	4/23/76	8	28	0.116	0.0245	1.384	0.42	33.09
2	4/23/76	8	29	0.110	0.0224	1.264	0.44	33.12
2	4/23/76	8	30	0.107	0.0213	1.204	0.47	33.14
2	4/23/76	8	31	0.104	0.0202	1.144	0.49	33.16
2	4/23/76	8	32	0.098	0.0181	1.024	0.50	33.17
2	4/23/76	8	33	0.094	0.0171	0.964	0.52	33.19
2	4/23/76	8	34	0.091	0.0160	0.904	0.54	33.21
2	4/23/76	8	37	0.088	0.0152	0.858	0.58	33.25
2	4/23/76	8	40	0.091	0.0160	0.904	0.62	33.29
2	4/23/76	8	41	0.094	0.0171	0.964	0.64	33.31
2	4/23/76	8	42	0.098	0.0181	1.024	0.66	33.33
2	4/23/76	8	43	0.101	0.0192	1.084	0.67	33.34
2	4/23/76	8	44	0.107	0.0213	1.204	0.69	33.36
2	4/23/76	8	45	0.110	0.0224	1.264	0.71	33.38
2	4/23/76	8	46	0.116	0.0245	1.384	0.73	33.41
2	4/23/76	8	47	0.125	0.0280	1.581	0.76	33.43
2	4/23/76	8	48	0.140	0.0348	1.965	0.79	33.46
2	4/23/76	8	49	0.149	0.0389	2.196	0.82	33.49
2	4/23/76	8	50	0.162	0.0452	2.556	0.86	33.53
2	4/23/76	8	51	0.168	0.0486	2.745	0.91	33.58
2	4/23/76	8	52	0.177	0.0536	3.028	0.96	33.63
2	4/23/76	8	53	0.186	0.0589	3.329	1.01	33.68
2	4/23/76	8	54	0.189	0.0609	3.441	1.06	33.74
2	4/23/76	8	55	0.195	0.0648	3.665	1.12	33.80
2	4/23/76	8	56	0.198	0.0668	3.777	1.19	33.86
2	4/23/76	8	59	0.198	0.0668	3.777	1.38	34.05
2	4/23/76	9	0	0.195	0.0648	3.665	1.44	34.11
2	4/23/76	9	1	0.192	0.0629	3.553	1.50	34.17
2	4/23/76	9	2	0.189	0.0609	3.441	1.56	34.23
2	4/23/76	9	3	0.183	0.0569	3.217	1.61	34.28
2	4/23/76	9	4	0.180	0.0552	3.122	1.66	34.33
2	4/23/76	9	5	0.177	0.0536	3.028	1.72	34.39
2	4/23/76	9	6	0.174	0.0519	2.933	1.76	34.44
2	4/23/76	9	7	0.168	0.0486	2.745	1.81	34.48
2	4/23/76	9	8	0.162	0.0452	2.556	1.86	34.53
2	4/23/76	9	9	0.158	0.0436	2.461	1.90	34.57
2	4/23/76	9	10	0.152	0.0402	2.272	1.94	34.61
2	4/23/76	9	11	0.149	0.0389	2.196	1.97	34.65
2	4/23/76	9	12	0.146	0.0375	2.119	2.01	34.68
2	4/23/76	9	13	0.143	0.0361	2.042	2.05	34.72
2	4/23/76	9	14	0.140	0.0348	1.965	2.08	34.75
2	4/23/76	9	17	0.137	0.0334	1.888	2.18	34.85
2	4/23/76	9	21	0.140	0.0348	1.965	2.30	34.97
2	4/23/76	9	23	0.143	0.0361	2.042	2.37	35.04
2	4/23/76	9	24	0.146	0.0375	2.119	2.40	35.08
2	4/23/76	9	25	0.149	0.0389	2.196	2.44	35.11
2	4/23/76	9	27	0.152	0.0402	2.272	2.52	35.19
2	4/23/76	9	29	0.155	0.0419	2.367	2.59	35.26
2	4/23/76	9	31	0.158	0.0436	2.461	2.67	35.34
2	4/23/76	9	34	0.155	0.0419	2.367	2.79	35.46
2	4/23/76	9	36	0.152	0.0402	2.272	2.87	35.54
2	4/23/76	9	38	0.149	0.0389	2.196	2.95	35.62
2	4/23/76	9	40	0.146	0.0375	2.119	3.02	35.69
2	4/23/76	9	41	0.143	0.0361	2.042	3.05	35.72
2	4/23/76	9	42	0.140	0.0348	1.965	3.09	35.76
2	4/23/76	9	43	0.137	0.0334	1.888	3.12	35.79
2	4/23/76	9	45	0.134	0.0321	1.812	3.18	35.85
2	4/23/76	9	48	0.131	0.0307	1.735	3.27	35.94
2	4/23/76	9	59	0.131	0.0307	1.735	3.59	36.26
2	4/23/76	10	5	0.128	0.0293	1.658	3.76	36.43
2	4/23/76	10	10	0.128	0.0293	1.658	3.89	36.56
2	4/23/76	10	13	0.131	0.0307	1.735	3.98	36.65
2	4/23/76	10	15	0.134	0.0321	1.812	4.04	36.71
2	4/23/76	10	16	0.137	0.0334	1.888	4.07	36.74
2	4/23/76	10	17	0.140	0.0348	1.965	4.10	36.77
2	4/23/76	10	19	0.143	0.0361	2.042	4.17	36.84
2	4/23/76	10	22	0.146	0.0375	2.119	4.27	36.94
2	4/23/76	10	24	0.143	0.0361	2.042	4.34	37.01
2	4/23/76	10	25	0.140	0.0348	1.965	4.37	37.05
2	4/23/76	10	27	0.137	0.0334	1.888	4.44	37.11
2	4/23/76	10	28	0.134	0.0321	1.812	4.47	37.14
2	4/23/76	10	29	0.125	0.0280	1.581	4.50	37.17
2	4/23/76	10	30	0.122	0.0266	1.504	4.52	37.19
2	4/23/76	10	31	0.113	0.0234	1.324	4.55	37.22

TABLE D1- 2. CONTINUED

SITE	DATE	HOUR	MIN	STAGE M	RUNOFF RATE CMS	RUNOFF INTENSITY MMPH	STORM RUNOFF MM	ANNUAL RUNOFF MM
2	4/23/76	10	32	0.107	0.0213	1.204	4.57	37.24
2	4/23/76	10	33	0.104	0.0202	1.144	4.59	37.26
2	4/23/76	10	34	0.098	0.0181	1.024	4.61	37.28
2	4/23/76	10	35	0.094	0.0171	0.964	4.62	37.29
2	4/23/76	10	36	0.091	0.0160	0.904	4.64	37.31
2	4/23/76	10	37	0.085	0.0144	0.812	4.65	37.32
2	4/23/76	10	38	0.079	0.0127	0.720	4.66	37.34
2	4/23/76	10	39	0.073	0.0111	0.629	4.68	37.35
2	4/23/76	10	40	0.064	0.0087	0.491	4.69	37.36
2	4/23/76	10	41	0.058	0.0073	0.415	4.69	37.36
2	4/23/76	10	42	0.052	0.0063	0.354	4.70	37.37
2	4/23/76	10	43	0.049	0.0057	0.324	4.70	37.38
2	4/23/76	10	45	0.046	0.0052	0.294	4.72	37.39
2	4/23/76	10	46	0.043	0.0047	0.263	4.72	37.39
2	4/23/76	10	48	0.040	0.0041	0.233	4.73	37.40
2	4/23/76	10	49	0.037	0.0036	0.203	4.73	37.40
2	4/23/76	10	51	0.034	0.0031	0.173	4.74	37.41
2	4/23/76	10	52	0.030	0.0025	0.142	4.74	37.41
2	4/23/76	10	54	0.027	0.0023	0.128	4.75	37.42
2	4/23/76	10	57	0.024	0.0020	0.114	4.75	37.42
2	4/23/76	11	1	0.021	0.0018	0.100	4.76	37.43
2	4/23/76	11	5	0.018	0.0015	0.085	4.76	37.44
2	4/23/76	11	12	0.015	0.0013	0.071	4.77	37.44
2	4/23/76	11	18	0.012	0.0010	0.057	4.78	37.45
2	4/23/76	11	28	0.009	0.0008	0.043	4.79	37.46
2	4/23/76	11	40	0.006	0.0005	0.028	4.80	37.47
2	4/23/76	12	0	0.003	0.0003	0.014	4.80	37.47
2	4/23/76	12	20	0.0	0.0	0.0	4.81	37.48
2	4/23/76	17	31	0.0	0.0	0.0	0.0	37.48
2	4/23/76	17	32	0.003	0.0003	0.014	0.00	37.48
2	4/23/76	17	33	0.012	0.0010	0.057	0.00	37.48
2	4/23/76	17	34	0.027	0.0023	0.128	0.00	37.48
2	4/23/76	17	35	0.046	0.0052	0.294	0.01	37.48
2	4/23/76	17	36	0.058	0.0073	0.415	0.01	37.49
2	4/23/76	17	37	0.068	0.0152	0.858	0.02	37.50
2	4/23/76	17	38	0.119	0.0256	1.444	0.04	37.52
2	4/23/76	17	39	0.168	0.0486	2.745	0.08	37.55
2	4/23/76	17	40	0.192	0.0629	3.553	0.13	37.60
2	4/23/76	17	41	0.210	0.0748	4.225	0.19	37.67
2	4/23/76	17	42	0.223	0.0837	4.731	0.27	37.74
2	4/23/76	17	43	0.226	0.0860	4.862	0.35	37.82
2	4/23/76	17	44	0.223	0.0837	4.731	0.43	37.90
2	4/23/76	17	45	0.219	0.0814	4.599	0.51	37.98
2	4/23/76	17	46	0.213	0.0767	4.337	0.58	38.06
2	4/23/76	17	47	0.207	0.0728	4.113	0.65	38.13
2	4/23/76	17	48	0.195	0.0648	3.665	0.72	38.19
2	4/23/76	17	49	0.183	0.0569	3.217	0.77	38.25
2	4/23/76	17	50	0.171	0.0502	2.839	0.82	38.30
2	4/23/76	17	51	0.158	0.0436	2.461	0.87	38.34
2	4/23/76	17	52	0.146	0.0375	2.119	0.91	38.38
2	4/23/76	17	53	0.134	0.0321	1.812	0.94	38.41
2	4/23/76	17	54	0.122	0.0266	1.504	0.97	38.44
2	4/23/76	17	55	0.113	0.0234	1.324	0.99	38.47
2	4/23/76	17	56	0.104	0.0202	1.144	1.01	38.49
2	4/23/76	17	57	0.098	0.0181	1.024	1.03	38.50
2	4/23/76	17	58	0.091	0.0160	0.904	1.04	38.52
2	4/23/76	17	59	0.088	0.0152	0.858	1.06	38.53
2	4/23/76	18	0	0.085	0.0144	0.812	1.07	38.55
2	4/23/76	18	1	0.076	0.0119	0.675	1.09	38.56
2	4/23/76	18	2	0.067	0.0095	0.537	1.10	38.57
2	4/23/76	18	3	0.061	0.0079	0.445	1.10	38.58
2	4/23/76	18	4	0.052	0.0063	0.354	1.11	38.59
2	4/23/76	18	5	0.046	0.0052	0.294	1.12	38.59
2	4/23/76	18	7	0.043	0.0047	0.263	1.13	38.60
2	4/23/76	18	9	0.040	0.0041	0.233	1.13	38.61
2	4/23/76	18	11	0.037	0.0036	0.203	1.14	38.62
2	4/23/76	18	13	0.034	0.0031	0.173	1.15	38.62
2	4/23/76	18	15	0.030	0.0025	0.142	1.15	38.63
2	4/23/76	18	17	0.027	0.0023	0.128	1.16	38.63
2	4/23/76	18	19	0.024	0.0020	0.114	1.16	38.64
2	4/23/76	18	22	0.021	0.0018	0.100	1.17	38.64
2	4/23/76	18	27	0.018	0.0015	0.085	1.17	38.65
2	4/23/76	18	31	0.015	0.0013	0.071	1.18	38.65
2	4/23/76	18	37	0.012	0.0010	0.057	1.19	38.66
2	4/23/76	18	43	0.009	0.0008	0.043	1.19	38.67
2	4/23/76	18	52	0.006	0.0005	0.028	1.20	38.67
2	4/23/76	19	3	0.003	0.0003	0.014	1.20	38.67
2	4/23/76	19	20	0.0	0.0	0.0	1.20	38.68
2	5/29/76	7	15	0.0	0.0	0.0	0.0	38.68
2	5/29/76	7	20	0.003	0.0003	0.014	0.00	38.68
2	5/29/76	7	24	0.003	0.0003	0.014	0.00	38.68
2	5/29/76	7	25	0.012	0.0010	0.057	0.00	38.68
2	5/29/76	7	26	0.037	0.0036	0.203	0.00	38.68
2	5/29/76	7	27	0.079	0.0127	0.720	0.01	38.69
2	5/29/76	7	28	0.122	0.0266	1.504	0.03	38.71
2	5/29/76	7	29	0.195	0.0648	3.665	0.07	38.76
2	5/29/76	7	30	0.287	0.1391	7.861	0.17	38.85
2	5/29/76	7	31	0.431	0.7416	41.912	0.58	39.26
2	5/29/76	7	32	0.680	0.8758	49.498	1.35	40.02
2	5/29/76	7	33	0.719	0.9951	56.235	2.23	40.90
2	5/29/76	7	34	0.732	1.0336	58.412	3.18	41.86
2	5/29/76	7	35	0.735	1.0432	58.966	4.16	42.84
2	5/29/76	7	36	0.716	0.9854	55.691	5.12	43.79
2	5/29/76	7	37	0.692	0.9110	51.482	6.01	44.69
2	5/29/76	7	38	0.661	0.8240	46.569	6.83	45.50
2	5/29/76	7	39	0.628	0.7340	41.480	7.56	46.24
2	5/29/76	7	40	0.585	0.6292	35.559	8.20	46.88
2	5/29/76	7	41	0.552	0.5508	31.126	8.76	47.43
2	5/29/76	7	42	0.521	0.4876	27.558	9.25	47.92
2	5/29/76	7	43	0.475	0.4004	22.629	9.67	48.34

TABLE DI- 2. CONTINUED

SITE	DATE	HOUR	MIN	STAGE M	RUNOFF RATE CMS	RUNOFF INTENSITY MMPH	STORM RUNOFF MM	ANNUAL RUNOFF MM
2	5/29/76	7	44	0.430	0.3222	18.212	10.01	48.68
2	5/29/76	7	45	0.390	0.2620	14.806	10.28	48.96
2	5/29/76	7	46	0.344	0.2025	11.442	10.50	49.18
2	5/29/76	7	47	0.314	0.1676	9.474	10.67	49.35
2	5/29/76	7	48	0.268	0.1215	6.865	10.81	49.49
2	5/29/76	7	49	0.244	0.1000	5.649	10.91	49.59
2	5/29/76	7	50	0.216	0.0791	4.468	11.00	49.67
2	5/29/76	7	51	0.195	0.0648	3.665	11.07	49.74
2	5/29/76	7	52	0.174	0.0519	2.933	11.12	49.80
2	5/29/76	7	53	0.152	0.0402	2.272	11.16	49.84
2	5/29/76	7	54	0.137	0.0334	1.888	11.20	49.88
2	5/29/76	7	55	0.125	0.0280	1.581	11.23	49.90
2	5/29/76	7	56	0.116	0.0245	1.384	11.25	49.93
2	5/29/76	7	57	0.104	0.0202	1.144	11.27	49.95
2	5/29/76	7	58	0.091	0.0160	0.904	11.29	49.97
2	5/29/76	7	59	0.082	0.0136	0.766	11.30	49.98
2	5/29/76	8	0	0.076	0.0119	0.675	11.32	49.99
2	5/29/76	8	1	0.067	0.0095	0.537	11.33	50.00
2	5/29/76	8	2	0.061	0.0079	0.445	11.34	50.01
2	5/29/76	8	3	0.058	0.0073	0.415	11.34	50.02
2	5/29/76	8	4	0.052	0.0063	0.354	11.35	50.03
2	5/29/76	8	5	0.046	0.0052	0.294	11.35	50.03
2	5/29/76	8	6	0.043	0.0047	0.263	11.36	50.04
2	5/29/76	8	7	0.040	0.0041	0.233	11.36	50.04
2	5/29/76	8	8	0.037	0.0036	0.203	11.37	50.04
2	5/29/76	8	9	0.030	0.0025	0.142	11.37	50.05
2	5/29/76	8	12	0.024	0.0020	0.114	11.38	50.05
2	5/29/76	8	15	0.018	0.0015	0.085	11.38	50.06
2	5/29/76	8	18	0.015	0.0013	0.071	11.38	50.06
2	5/29/76	8	22	0.012	0.0010	0.057	11.39	50.07
2	5/29/76	8	24	0.009	0.0008	0.043	11.39	50.07
2	5/29/76	8	27	0.006	0.0005	0.028	11.39	50.07
2	5/29/76	8	32	0.003	0.0003	0.014	11.39	50.07
2	5/29/76	8	45	0.0	0.0	0.0	11.40	50.07
2	6/13/76	19	27	0.0	0.0	0.0	0.0	50.07
2	6/13/76	19	30	0.006	0.0005	0.028	0.00	50.07
2	6/13/76	19	31	0.009	0.0008	0.043	0.00	50.07
2	6/13/76	19	34	0.015	0.0013	0.071	0.00	50.08
2	6/13/76	19	35	0.018	0.0015	0.085	0.01	50.08
2	6/13/76	19	38	0.024	0.0020	0.114	0.01	50.08
2	6/13/76	19	39	0.027	0.0023	0.128	0.01	50.08
2	6/13/76	19	41	0.030	0.0025	0.142	0.02	50.09
2	6/13/76	19	42	0.037	0.0036	0.203	0.02	50.09
2	6/13/76	19	44	0.046	0.0052	0.294	0.03	50.10
2	6/13/76	19	45	0.049	0.0057	0.324	0.03	50.11
2	6/13/76	19	46	0.052	0.0063	0.354	0.04	50.11
2	6/13/76	19	47	0.055	0.0068	0.384	0.05	50.12
2	6/13/76	19	49	0.058	0.0073	0.415	0.06	50.13
2	6/13/76	19	56	0.055	0.0068	0.384	0.11	50.18
2	6/13/76	20	0	0.052	0.0063	0.354	0.13	50.20
2	6/13/76	20	2	0.049	0.0057	0.324	0.14	50.21
2	6/13/76	20	5	0.046	0.0052	0.294	0.16	50.23
2	6/13/76	20	8	0.043	0.0047	0.263	0.17	50.24
2	6/13/76	20	10	0.040	0.0041	0.233	0.18	50.25
2	6/13/76	20	11	0.037	0.0036	0.203	0.18	50.25
2	6/13/76	20	12	0.037	0.0036	0.203	0.19	50.26
2	6/13/76	20	14	0.034	0.0031	0.173	0.19	50.26
2	6/13/76	20	17	0.030	0.0025	0.142	0.20	50.27
2	6/13/76	20	20	0.030	0.0025	0.142	0.21	50.28
2	6/13/76	20	22	0.034	0.0031	0.173	0.21	50.28
2	6/13/76	20	23	0.037	0.0036	0.203	0.22	50.29
2	6/13/76	20	25	0.043	0.0047	0.263	0.22	50.29
2	6/13/76	20	26	0.049	0.0057	0.324	0.23	50.30
2	6/13/76	20	27	0.052	0.0063	0.354	0.23	50.31
2	6/13/76	20	28	0.055	0.0068	0.384	0.24	50.31
2	6/13/76	20	29	0.058	0.0073	0.415	0.25	50.32
2	6/13/76	20	30	0.061	0.0079	0.445	0.25	50.33
2	6/13/76	20	33	0.073	0.0111	0.629	0.28	50.35
2	6/13/76	20	35	0.079	0.0127	0.720	0.30	50.37
2	6/13/76	20	38	0.082	0.0136	0.766	0.34	50.41
2	6/13/76	20	41	0.085	0.0144	0.812	0.38	50.45
2	6/13/76	20	42	0.088	0.0152	0.858	0.39	50.47
2	6/13/76	20	43	0.091	0.0160	0.904	0.41	50.48
2	6/13/76	20	45	0.098	0.0181	1.024	0.44	50.51
2	6/13/76	20	49	0.101	0.0192	1.084	0.51	50.58
2	6/13/76	20	54	0.101	0.0192	1.084	0.60	50.67
2	6/13/76	20	59	0.098	0.0181	1.024	0.69	50.76
2	6/13/76	21	4	0.094	0.0171	0.964	0.77	50.84
2	6/13/76	21	9	0.091	0.0160	0.904	0.85	50.92
2	6/13/76	21	10	0.088	0.0152	0.858	0.86	50.94
2	6/13/76	21	12	0.085	0.0144	0.812	0.89	50.96
2	6/13/76	21	15	0.082	0.0136	0.766	0.93	51.00
2	6/13/76	21	18	0.079	0.0127	0.720	0.97	51.04
2	6/13/76	21	20	0.076	0.0119	0.675	0.99	51.06
2	6/13/76	21	22	0.073	0.0111	0.629	1.01	51.09
2	6/13/76	21	24	0.070	0.0103	0.583	1.03	51.11
2	6/13/76	21	26	0.067	0.0095	0.537	1.05	51.12
2	6/13/76	21	29	0.061	0.0079	0.445	1.08	51.15
2	6/13/76	21	32	0.055	0.0068	0.384	1.10	51.17
2	6/13/76	21	34	0.052	0.0063	0.354	1.11	51.18
2	6/13/76	21	36	0.049	0.0057	0.324	1.12	51.19
2	6/13/76	21	38	0.046	0.0052	0.294	1.13	51.20
2	6/13/76	21	39	0.043	0.0047	0.263	1.14	51.21
2	6/13/76	21	42	0.037	0.0036	0.203	1.15	51.22
2	6/13/76	21	43	0.034	0.0031	0.173	1.15	51.22
2	6/13/76	21	44	0.030	0.0025	0.142	1.15	51.22
2	6/13/76	21	47	0.024	0.0020	0.114	1.16	51.23
2	6/13/76	21	49	0.021	0.0018	0.100	1.16	51.23
2	6/13/76	21	52	0.018	0.0015	0.085	1.17	51.24
2	6/13/76	21	54	0.015	0.0013	0.071	1.17	51.24
2	6/13/76	21	57	0.012	0.0010	0.057	1.17	51.25
2	6/13/76	22	1	0.009	0.0008	0.043	1.18	51.25

TABLE D1- 2. CONCLUDED

SITE	DATE	HOUR	MIN	STAGE M	RUNOFF RATE CMS	RUNOFF INTENSITY MMPH	STORM RUNOFF MM	ANNUAL RUNOFF MM
2	6/13/76	22	5	0.006	0.0005	0.028	1.18	51.25
2	6/13/76	22	11	0.003	0.0003	0.014	1.18	51.25
2	6/13/76	22	15	0.0	0.0	0.0	1.18	51.25

TABLE D1- 3. FOUR MILE CREEK WATERSHED RUNOFF DATA FOR 1976 SITE 3

SITE	DATE	HOUR	MIN	STAGE M	RUNOFF RATE CMS	RUNOFF INTENSITY MMPH	STORM RUNOFF MM	ANNUAL RUNOFF MM
3	2/25/76	10	0	0.0	0.0	0.0	0.0	0.0
3	2/25/76	14	0	0.018	0.0015	0.092	0.18	0.18
3	2/25/76	16	0	0.018	0.0015	0.092	0.37	0.37
3	2/25/76	17	0	0.018	0.0015	0.092	0.46	0.46
3	2/25/76	20	0	0.0	0.0	0.0	0.60	0.60
3	2/26/76	10	0	0.0	0.0	0.0	0.0	0.60
3	2/26/76	15	0	0.009	0.0008	0.046	0.11	0.71
3	2/26/76	18	15	0.058	0.0073	0.445	0.91	1.51
3	2/26/76	22	0	0.0	0.0	0.0	1.75	2.34
3	2/27/76	9	0	0.0	0.0	0.0	0.0	2.34
3	2/27/76	12	37	0.052	0.0063	0.380	0.69	3.03
3	2/27/76	13	45	0.070	0.0103	0.626	1.26	3.60
3	2/27/76	14	30	0.094	0.0171	1.036	1.88	4.23
3	2/27/76	16	0	0.070	0.0103	0.626	3.13	5.47
3	2/27/76	17	35	0.046	0.0052	0.315	3.87	6.22
3	2/27/76	19	27	0.024	0.0020	0.122	4.28	6.63
3	2/27/76	21	45	0.012	0.0010	0.061	4.49	6.84
3	2/27/76	23	30	0.0	0.0	0.0	4.55	6.89
3	2/28/76	12	0	0.0	0.0	0.0	0.0	6.89
3	2/28/76	13	30	0.009	0.0008	0.046	0.03	6.93
3	2/28/76	[illegible]	0	0.006	0.0005	0.031	0.13	7.02
3	2/28/76	[illegible]7	0	0.0	0.0	0.0	0.15	7.04
3	3/ 7/76	9	45	0.0	0.0	0.0	0.0	7.04
3	3/ 7/76	13	10	0.052	0.0063	0.380	0.65	7.69
3	3/ 7/76	14	18	0.073	0.0111	0.675	1.25	8.28
3	3/ 7/76	15	18	0.064	0.0087	0.527	1.85	8.89
3	3/ 7/76	18	40	0.006	0.0005	0.031	2.79	9.82
3	3/ 7/76	19	0	0.0	0.0	0.0	2.79	9.83
3	3/ 9/76	9	0	0.0	0.0	0.0	0.0	9.83
3	3/ 9/76	11	32	0.021	0.0018	0.107	0.14	9.97
3	3/ 9/76	13	5	0.021	0.0018	0.107	0.30	10.13
3	3/ 9/76	14	50	0.015	0.0013	0.076	0.46	10.29
3	3/ 9/76	16	16	0.006	0.0005	0.031	0.54	10.37
3	3/ 9/76	18	0	0.003	0.0003	0.015	0.58	10.41
3	3/ 9/76	18	30	0.0	0.0	0.0	0.58	10.41
3	4/17/76	0	10	0.0	0.0	0.0	0.0	10.41
3	4/17/76	0	11	0.006	0.0005	0.031	0.00	10.41
3	4/17/76	0	12	0.009	0.0008	0.046	0.00	10.41
3	4/17/76	0	13	0.012	0.0010	0.061	0.00	10.41
3	4/17/76	0	15	0.015	0.0013	0.076	0.00	10.42
3	4/17/76	0	20	0.012	0.0010	0.061	0.01	10.42
3	4/17/76	0	35	0.009	0.0008	0.046	0.02	10.44
3	4/17/76	0	45	0.012	0.0010	0.061	0.03	10.44
3	4/17/76	1	50	0.012	0.0010	0.061	0.10	10.51
3	4/17/76	2	35	0.009	0.0008	0.046	0.14	10.55
3	4/17/76	3	30	0.006	0.0005	0.031	0.17	10.59
3	4/17/76	4	0	0.0	0.0	0.0	0.18	10.59
3	4/20/76	16	25	0.0	0.0	0.0	0.0	10.59
3	4/20/76	16	31	0.003	0.0003	0.015	0.00	10.59
3	4/20/76	16	35	0.006	0.0005	0.031	0.00	10.60
3	4/20/76	16	36	0.009	0.0008	0.046	0.00	10.60
3	4/20/76	16	42	0.012	0.0010	0.061	0.01	10.60
3	4/20/76	16	46	0.015	0.0013	0.076	0.01	10.61
3	4/20/76	16	55	0.018	0.0015	0.092	0.03	10.62
3	4/20/76	18	0	0.018	0.0015	0.092	0.12	10.72
3	4/20/76	18	45	0.015	0.0013	0.076	0.19	10.78
3	4/20/76	19	51	0.012	0.0010	0.061	0.26	10.86
3	4/20/76	20	57	0.012	0.0010	0.061	0.33	10.92
3	4/20/76	20	59	0.009	0.0008	0.046	0.33	10.93
3	4/20/76	21	2	0.006	0.0005	0.031	0.33	10.93
3	4/20/76	21	30	0.003	0.0003	0.015	0.35	10.94
3	4/20/76	22	0	0.0	0.0	0.0	0.35	10.94
3	4/23/76	8	37	0.0	0.0	0.0	0.0	10.94
3	4/23/76	8	43	0.003	0.0003	0.015	0.00	10.94
3	4/23/76	8	50	0.006	0.0005	0.031	0.00	10.95
3	4/23/76	8	58	0.009	0.0008	0.046	0.01	10.95
3	4/23/76	9	10	0.012	0.0010	0.061	0.02	10.96
3	4/23/76	9	27	0.015	0.0013	0.076	0.04	10.98
3	4/23/76	9	54	0.018	0.0015	0.092	0.08	11.02
3	4/23/76	10	30	0.015	0.0013	0.076	0.13	11.07
3	4/23/76	10	45	0.012	0.0010	0.061	0.14	11.09
3	4/23/76	10	55	0.009	0.0008	0.046	0.15	11.10
3	4/23/76	11	15	0.006	0.0005	0.031	0.17	11.11
3	4/23/76	13	10	0.003	0.0003	0.015	0.21	11.15
3	4/23/76	13	53	0.0	0.0	0.0	0.22	11.16
3	5/ 2/76	1	57	0.0	0.0	0.0	0.0	11.16
3	5/ 2/76	2	13	0.003	0.0003	0.015	0.00	11.16
3	5/ 2/76	2	37	0.006	0.0005	0.031	0.01	11.17
3	5/ 2/76	2	42	0.009	0.0008	0.046	0.01	11.17
3	5/ 2/76	3	9	0.012	0.0010	0.061	0.04	11.20
3	5/ 2/76	4	10	0.015	0.0013	0.076	0.11	11.27
3	5/ 2/76	5	0	0.018	0.0015	0.092	0.18	11.34
3	5/ 2/76	5	50	0.015	0.0013	0.076	0.25	11.41
3	5/ 2/76	8	30	0.012	0.0010	0.061	0.43	11.59
3	5/ 2/76	10	36	0.009	0.0008	0.046	0.54	11.70
3	5/ 2/76	13	15	0.006	0.0005	0.031	0.65	11.80

TABLE D1- 3. CONCLUDED

SITE	DATE	HOUR	MIN	STAGE M	RUNOFF RATE CMS	RUNOFF INTENSITY MMPH	STORM RUNOFF MM	ANNUAL RUNOFF MM
3	5/ 2/76	14	30	0.003	0.0003	0.015	0.67	11.83
3	5/ 2/76	15	0	0.0	0.0	0.0	0.68	11.84
3	5/29/76	7	41	0.0	0.0	0.0	0.0	11.84
3	5/29/76	7	42	0.012	0.0010	0.061	0.00	11.84
3	5/29/76	7	44	0.012	0.0010	0.061	0.00	11.84
3	5/29/76	7	45	0.018	0.0015	0.092	0.00	11.84
3	5/29/76	7	46	0.024	0.0020	0.122	0.01	11.84
3	5/29/76	7	47	0.034	0.0031	0.185	0.01	11.85
3	5/29/76	7	48	0.043	0.0047	0.283	0.01	11.85
3	5/29/76	7	49	0.055	0.0068	0.413	0.02	11.86
3	5/29/76	7	50	0.070	0.0103	0.626	0.03	11.86
3	5/29/76	7	51	0.085	0.0144	0.873	0.04	11.88
3	5/29/76	7	52	0.104	0.0202	1.229	0.06	11.89
3	5/29/76	7	53	0.125	0.0280	1.698	0.08	11.92
3	5/29/76	7	54	0.140	0.0348	2.111	0.11	11.95
3	5/29/76	7	55	0.146	0.0375	2.276	0.15	11.99
3	5/29/76	7	56	0.155	0.0419	2.542	0.19	12.03
3	5/29/76	7	57	0.183	0.0569	3.455	0.24	12.08
3	5/29/76	7	58	0.198	0.0668	4.057	0.30	12.14
3	5/29/76	7	59	0.198	0.0668	4.057	0.37	12.21
3	5/29/76	8	0	0.192	0.0629	3.816	0.44	12.27
3	5/29/76	8	1	0.183	0.0569	3.455	0.50	12.33
3	5/29/76	8	2	0.171	0.0502	3.050	0.55	12.39
3	5/29/76	8	3	0.158	0.0436	2.644	0.60	12.43
3	5/29/76	8	4	0.149	0.0389	2.359	0.64	12.48
3	5/29/76	8	5	0.140	0.0348	2.111	0.68	12.51
3	5/29/76	8	6	0.131	0.0307	1.863	0.71	12.55
3	5/29/76	8	7	0.125	0.0280	1.698	0.74	12.58
3	5/29/76	8	8	0.119	0.0256	1.551	0.77	12.60
3	5/29/76	8	9	0.116	0.0245	1.487	0.79	12.63
3	5/29/76	8	10	0.107	0.0213	1.294	0.81	12.65
3	5/29/76	8	12	0.094	0.0171	1.036	0.85	12.69
3	5/29/76	8	13	0.085	0.0144	0.873	0.87	12.71
3	5/29/76	8	14	0.079	0.0127	0.774	0.88	12.72
3	5/29/76	8	17	0.067	0.0095	0.577	0.92	12.75
3	5/29/76	8	20	0.055	0.0068	0.413	0.94	12.78
3	5/29/76	8	23	0.043	0.0047	0.283	0.96	12.80
3	5/29/76	8	26	0.030	0.0025	0.153	0.97	12.81
3	5/29/76	8	29	0.024	0.0020	0.122	0.98	12.81
3	5/29/76	8	31	0.021	0.0018	0.107	0.98	12.82
3	5/29/76	8	33	0.018	0.0015	0.092	0.98	12.82
3	5/29/76	8	36	0.015	0.0013	0.076	0.99	12.83
3	5/29/76	8	39	0.012	0.0010	0.061	0.99	12.83
3	5/29/76	8	42	0.009	0.0008	0.046	0.99	12.83
3	5/29/76	8	45	0.006	0.0005	0.031	1.00	12.83
3	5/29/76	8	47	0.003	0.0003	0.015	1.00	12.83
3	5/29/76	8	51	0.0	0.0	0.0	1.00	12.83
3	6/13/76	18	46	0.0	0.0	0.0	0.0	12.83
3	6/13/76	18	48	0.003	0.0003	0.015	0.00	12.84
3	6/13/76	19	17	0.003	0.0003	0.015	0.01	12.84
3	6/13/76	19	19	0.009	0.0008	0.046	0.01	12.84
3	6/13/76	19	20	0.012	0.0010	0.061	0.01	12.84
3	6/13/76	19	22	0.015	0.0013	0.076	0.01	12.85
3	6/13/76	20	7	0.015	0.0013	0.076	0.07	12.90
3	6/13/76	20	14	0.012	0.0010	0.061	0.08	12.91
3	6/13/76	20	22	0.009	0.0008	0.046	0.08	12.92
3	6/13/76	20	51	0.009	0.0008	0.046	0.11	12.94
3	6/13/76	20	54	0.012	0.0010	0.061	0.11	12.94
3	6/13/76	21	35	0.012	0.0010	0.061	0.15	12.99
3	6/13/76	21	53	0.009	0.0008	0.046	0.17	13.00
3	6/13/76	22	7	0.006	0.0005	0.031	0.18	13.01
3	6/13/76	22	13	0.006	0.0005	0.031	0.18	13.01
3	6/13/76	22	17	0.003	0.0003	0.015	0.18	13.02
3	6/13/76	22	28	0.0	0.0	0.0	0.18	13.02

TABLE D1- 4. FOUR MILE CREEK WATERSHED RUNOFF DATA FOR 1976 SITE 7

SITE	DATE	HOUR	MIN	STAGE M	RUNOFF RATE CMS	RUNOFF INTENSITY MMPH	STORM RUNOFF MM	ANNUAL RUNOFF MM
7	6/13/76	18	40	0.0	0.0	0.0	0.0	0.0
7	6/13/76	18	42	0.064	0.1189	0.151	0.00	0.00
7	6/13/76	18	44	0.131	0.2435	0.309	0.01	0.01
7	6/13/76	18	46	0.143	0.2662	0.337	0.02	0.02
7	6/13/76	18	48	0.149	0.2775	0.352	0.03	0.03
7	6/13/76	18	50	0.146	0.2718	0.345	0.04	0.04
7	6/13/76	18	52	0.140	0.2605	0.330	0.06	0.06
7	6/13/76	18	54	0.137	0.2549	0.323	0.07	0.07
7	6/13/76	18	56	0.134	0.2492	0.316	0.08	0.08
7	6/13/76	18	58	0.131	0.2435	0.309	0.09	0.09
7	6/13/76	19	0	0.128	0.2379	0.302	0.10	0.10
7	6/13/76	19	2	0.125	0.2322	0.294	0.11	0.11
7	6/13/76	19	4	0.122	0.2265	0.287	0.12	0.12
7	6/13/76	19	6	0.119	0.2209	0.280	0.13	0.13
7	6/13/76	19	8	0.113	0.2095	0.266	0.14	0.14
7	6/13/76	19	10	0.162	0.3070	0.389	0.15	0.15
7	6/13/76	19	12	0.204	0.4160	0.530	0.16	0.16
7	6/13/76	19	14	0.223	0.4655	0.590	0.18	0.18
7	6/13/76	19	16	0.253	0.5448	0.691	0.20	0.20
7	6/13/76	19	18	0.290	0.6400	0.811	0.23	0.23
7	6/13/76	19	20	0.326	0.7510	0.952	0.26	0.26
7	6/13/76	19	22	0.354	0.8427	1.068	0.29	0.29
7	6/13/76	19	24	0.372	0.9039	1.146	0.33	0.33
7	6/13/76	19	26	0.390	0.9650	1.223	0.37	0.37
7	6/13/76	19	28	0.399	0.9956	1.262	0.41	0.41
7	6/13/76	19	30	0.405	1.0160	1.288	0.45	0.45
7	6/13/76	19	32	0.408	1.0262	1.301	0.49	0.49
7	6/13/76	19	34	0.411	1.0364	1.314	0.54	0.54
7	6/13/76	19	36	0.415	1.0466	1.327	0.58	0.58
7	6/13/76	19	38	0.411	1.0364	1.314	0.62	0.62
7	6/13/76	19	40	0.408	1.0262	1.301	0.67	0.67
7	6/13/76	19	42	0.405	1.0160	1.288	0.71	0.71
7	6/13/76	19	44	0.399	0.9956	1.262	0.75	0.75
7	6/13/76	19	46	0.393	0.9752	1.236	0.80	0.80
7	6/13/76	19	48	0.381	0.9345	1.185	0.84	0.84
7	6/13/76	19	50	0.372	0.9039	1.146	0.87	0.87
7	6/13/76	19	52	0.360	0.8631	1.094	0.91	0.91
7	6/13/76	19	54	0.351	0.8325	1.055	0.95	0.95
7	6/13/76	19	56	0.338	0.7917	1.004	0.98	0.98
7	6/13/76	19	58	0.329	0.7612	0.965	1.02	1.02
7	6/13/76	20	0	0.317	0.7204	0.913	1.05	1.05
7	6/13/76	20	2	0.305	0.6796	0.861	1.08	1.08
7	6/13/76	20	4	0.296	0.6558	0.831	1.10	1.10
7	6/13/76	20	6	0.287	0.6320	0.801	1.13	1.13
7	6/13/76	20	8	0.277	0.6082	0.771	1.16	1.16
7	6/13/76	20	10	0.265	0.5765	0.731	1.18	1.18
7	6/13/76	20	12	0.259	0.5607	0.711	1.21	1.21
7	6/13/76	20	14	0.253	0.5448	0.691	1.23	1.23
7	6/13/76	20	16	0.247	0.5290	0.671	1.25	1.25
7	6/13/76	20	18	0.250	0.5369	0.681	1.28	1.28
7	6/13/76	20	20	0.253	0.5448	0.691	1.30	1.30
7	6/13/76	20	22	0.259	0.5607	0.711	1.32	1.32
7	6/13/76	20	24	0.271	0.5924	0.751	1.35	1.35
7	6/13/76	20	26	0.287	0.6320	0.801	1.37	1.37
7	6/13/76	20	28	0.299	0.6637	0.841	1.40	1.40
7	6/13/76	20	30	0.314	0.7102	0.900	1.43	1.43
7	6/13/76	20	32	0.329	0.7612	0.965	1.46	1.46
7	6/13/76	20	34	0.344	0.8121	1.029	1.49	1.49
7	6/13/76	20	36	0.357	0.8529	1.081	1.53	1.53
7	6/13/76	20	38	0.381	0.9345	1.185	1.57	1.57
7	6/13/76	20	40	0.405	1.0160	1.288	1.61	1.61
7	6/13/76	20	42	0.415	1.0466	1.327	1.65	1.65
7	6/13/76	20	44	0.427	1.0874	1.378	1.70	1.70
7	6/13/76	20	46	0.439	1.1281	1.430	1.74	1.74
7	6/13/76	20	48	0.451	1.1689	1.482	1.79	1.79
7	6/13/76	20	50	0.460	1.2023	1.524	1.84	1.84
7	6/13/76	20	52	0.466	1.2284	1.557	1.89	1.89
7	6/13/76	20	54	0.472	1.2544	1.590	1.94	1.94
7	6/13/76	20	56	0.479	1.2805	1.623	2.00	2.00
7	6/13/76	20	58	0.482	1.2935	1.640	2.05	2.05
7	6/13/76	21	10	0.482	1.2935	1.640	2.38	2.38
7	6/13/76	21	12	0.479	1.2805	1.623	2.43	2.43
7	6/13/76	21	14	0.475	1.2675	1.607	2.49	2.49
7	6/13/76	21	16	0.472	1.2544	1.590	2.54	2.54
7	6/13/76	21	18	0.469	1.2414	1.574	2.59	2.59
7	6/13/76	21	20	0.466	1.2284	1.557	2.65	2.65
7	6/13/76	21	22	0.463	1.2154	1.541	2.70	2.70
7	6/13/76	21	24	0.457	1.1893	1.508	2.75	2.75
7	6/13/76	21	26	0.451	1.1689	1.482	2.80	2.80
7	6/13/76	21	28	0.445	1.1485	1.456	2.85	2.85
7	6/13/76	21	30	0.439	1.1281	1.430	2.90	2.90
7	6/13/76	21	32	0.430	1.0976	1.391	2.94	2.94
7	6/13/76	21	34	0.424	1.0772	1.365	2.99	2.99
7	6/13/76	21	36	0.418	1.0568	1.340	3.03	3.03
7	6/13/76	21	38	0.411	1.0364	1.314	3.08	3.08
7	6/13/76	21	40	0.405	1.0160	1.288	3.12	3.12
7	6/13/76	21	42	0.396	0.9854	1.249	3.16	3.16
7	6/13/76	21	44	0.390	0.9650	1.223	3.21	3.21
7	6/13/76	21	46	0.378	0.9243	1.172	3.25	3.25
7	6/13/76	21	48	0.372	0.9039	1.146	3.28	3.28
7	6/13/76	21	50	0.363	0.8733	1.107	3.32	3.32
7	6/13/76	21	52	0.360	0.8631	1.094	3.36	3.36
7	6/13/76	21	54	0.354	0.8427	1.068	3.39	3.39
7	6/13/76	21	56	0.347	0.8223	1.042	3.43	3.43
7	6/13/76	21	58	0.341	0.8019	1.017	3.46	3.46
7	6/13/76	22	0	0.335	0.7815	0.991	3.50	3.50
7	6/13/76	22	2	0.329	0.7612	0.965	3.53	3.53
7	6/13/76	22	4	0.326	0.7510	0.952	3.56	3.56
7	6/13/76	22	6	0.323	0.7408	0.939	3.59	3.59
7	6/13/76	22	8	0.320	0.7306	0.926	3.62	3.62
7	6/13/76	22	10	0.317	0.7204	0.913	3.65	3.65
7	6/13/76	22	14	0.314	0.7102	0.900	3.72	3.72
7	6/13/76	22	36	0.314	0.7102	0.900	4.05	4.05
7	6/13/76	22	40	0.311	0.7000	0.887	4.10	4.10

TABLE D1- 4. CONCLUDED

SITE	DATE	HOUR	MIN	STAGE M	RUNOFF RATE CMS	RUNOFF INTENSITY MMPH	STORM RUNOFF MM	ANNUAL RUNOFF MM
7	6/13/76	22	46	0.308	0.6898	0.874	4.19	4.19
7	6/13/76	22	50	0.305	0.6796	0.861	4.25	4.25
7	6/13/76	22	52	0.302	0.6717	0.851	4.28	4.28
7	6/13/76	22	56	0.299	0.6637	0.841	4.34	4.34
7	6/13/76	22	58	0.296	0.6558	0.831	4.36	4.36
7	6/13/76	23	0	0.293	0.6479	0.821	4.39	4.39
7	6/13/76	23	2	0.290	0.6400	0.811	4.42	4.42
7	6/13/76	23	4	0.287	0.6320	0.801	4.45	4.45
7	6/13/76	23	6	0.280	0.6162	0.781	4.47	4.47
7	6/13/76	23	8	0.277	0.6082	0.771	4.50	4.50
7	6/13/76	23	10	0.274	0.6003	0.761	4.52	4.52
7	6/13/76	23	12	0.271	0.5924	0.751	4.55	4.55
7	6/13/76	23	14	0.268	0.5845	0.741	4.57	4.57
7	6/13/76	23	16	0.262	0.5686	0.721	4.60	4.60
7	6/13/76	23	18	0.256	0.5527	0.701	4.62	4.62
7	6/13/76	23	20	0.253	0.5448	0.691	4.64	4.64
7	6/13/76	23	22	0.250	0.5369	0.681	4.67	4.67
7	6/13/76	23	24	0.244	0.5210	0.660	4.69	4.69
7	6/13/76	23	26	0.241	0.5131	0.650	4.71	4.71
7	6/13/76	23	28	0.238	0.5052	0.640	4.73	4.73
7	6/13/76	23	30	0.232	0.4893	0.620	4.75	4.75
7	6/13/76	23	32	0.229	0.4814	0.610	4.77	4.77
7	6/13/76	23	34	0.223	0.4655	0.590	4.79	4.79
7	6/13/76	23	36	0.219	0.4576	0.580	4.81	4.81
7	6/13/76	23	38	0.216	0.4497	0.570	4.83	4.83
7	6/13/76	23	40	0.213	0.4417	0.560	4.85	4.85
7	6/13/76	23	42	0.210	0.4338	0.550	4.87	4.87
7	6/13/76	23	44	0.207	0.4259	0.540	4.89	4.89
7	6/13/76	23	46	0.204	0.4180	0.530	4.91	4.91
7	6/13/76	23	48	0.201	0.4100	0.520	4.92	4.92
7	6/13/76	23	50	0.198	0.4021	0.510	4.94	4.94
7	6/13/76	23	52	0.195	0.3942	0.500	4.96	4.96
7	6/13/76	23	54	0.192	0.3862	0.490	4.97	4.97
7	6/13/76	23	56	0.186	0.3704	0.470	4.99	4.99
7	6/13/76	24	0	0.183	0.3625	0.459	5.02	5.02
7	6/14/76	0	2	0.180	0.3545	0.449	5.04	5.04
7	6/14/76	0	4	0.177	0.3466	0.439	5.05	5.05
7	6/14/76	0	8	0.174	0.3387	0.429	5.08	5.08
7	6/14/76	0	12	0.171	0.3307	0.419	5.11	5.11
7	6/14/76	0	16	0.168	0.3228	0.409	5.14	5.14
7	6/14/76	0	18	0.165	0.3149	0.399	5.15	5.15
7	6/14/76	0	22	0.162	0.3070	0.389	5.18	5.18
7	6/14/76	0	26	0.158	0.2990	0.379	5.20	5.20
7	6/14/76	0	30	0.155	0.2911	0.369	5.23	5.23
7	6/14/76	0	34	0.152	0.2832	0.359	5.25	5.25
7	6/14/76	0	36	0.149	0.2775	0.352	5.26	5.26
7	6/14/76	0	40	0.146	0.2718	0.345	5.29	5.29
7	6/14/76	0	46	0.143	0.2662	0.337	5.32	5.32
7	6/14/76	0	52	0.140	0.2605	0.330	5.35	5.35
7	6/14/76	0	56	0.137	0.2549	0.323	5.38	5.38
7	6/14/76	1	2	0.134	0.2492	0.316	5.41	5.41
7	6/14/76	1	10	0.131	0.2435	0.309	5.45	5.45
7	6/14/76	1	20	0.128	0.2379	0.302	5.50	5.50
7	6/14/76	1	28	0.125	0.2322	0.294	5.54	5.54
7	6/14/76	1	36	0.122	0.2265	0.287	5.58	5.58
7	6/14/76	1	46	0.119	0.2209	0.280	5.63	5.63
7	6/14/76	1	56	0.116	0.2152	0.273	5.67	5.67
7	6/14/76	2	4	0.113	0.2095	0.266	5.71	5.71
7	6/14/76	2	20	0.110	0.2039	0.258	5.78	5.78
7	6/14/76	2	30	0.107	0.1982	0.251	5.82	5.82
7	6/14/76	2	40	0.104	0.1926	0.244	5.86	5.86
7	6/14/76	2	50	0.101	0.1869	0.237	5.90	5.90
7	6/14/76	3	0	0.098	0.1812	0.230	5.94	5.94
7	6/14/76	7	40	0.027	0.0510	0.065	6.63	6.63
7	6/14/76	8	30	0.015	0.0283	0.036	6.67	6.67
7	6/14/76	9	0	0.009	0.0170	0.022	6.68	6.68
7	6/14/76	9	40	0.003	0.0057	0.007	6.69	6.69
7	6/14/76	10	30	0.0	0.0	0.0	6.70	6.70

TABLE D1- 5. FOUR MILE CREEK WATERSHED RUNOFF DATA FOR 1976 SITE 8

SITE	DATE	HOUR	MIN	STAGE M	RUNOFF RATE CMS	RUNOFF INTENSITY MMPH	STORM RUNOFF MM	ANNUAL RUNOFF MM
8	6/13/76	18	45	0.0	0.0	0.0	0.0	0.0
8	6/13/76	18	46	0.015	0.0142	0.034	0.00	0.00
8	6/13/76	18	47	0.024	0.0227	0.055	0.00	0.00
8	6/13/76	18	48	0.030	0.0283	0.068	0.00	0.00
8	6/13/76	18	49	0.034	0.0368	0.089	0.00	0.00
8	6/13/76	18	50	0.037	0.0453	0.109	0.01	0.01
8	6/13/76	18	51	0.040	0.0538	0.130	0.01	0.01
8	6/13/76	18	52	0.043	0.0623	0.151	0.01	0.01
8	6/13/76	18	53	0.046	0.0708	0.171	0.01	0.01
8	6/13/76	18	56	0.046	0.0708	0.171	0.02	0.02
8	6/13/76	18	57	0.104	0.6683	1.615	0.04	0.04
8	6/13/76	18	58	0.207	1.3479	3.257	0.08	0.08
8	6/13/76	18	59	0.226	1.5093	3.647	0.13	0.13
8	6/13/76	19	0	0.250	1.7358	4.194	0.20	0.20
8	6/13/76	19	3	0.253	1.7684	4.273	0.41	0.41
8	6/13/76	19	5	0.256	1.8010	4.351	0.55	0.55
8	6/13/76	19	6	0.259	1.8335	4.430	0.63	0.63
8	6/13/76	19	8	0.262	1.8661	4.509	0.78	0.78
8	6/13/76	19	10	0.262	1.8661	4.509	0.93	0.93
8	6/13/76	19	11	0.259	1.8335	4.430	1.00	1.00
8	6/13/76	19	12	0.256	1.8010	4.351	1.07	1.07
8	6/13/76	19	13	0.253	1.7684	4.273	1.15	1.15
8	6/13/76	19	14	0.247	1.7033	4.115	1.22	1.22
8	6/13/76	19	15	0.241	1.6438	3.972	1.28	1.28
8	6/13/76	19	16	0.235	1.5900	3.842	1.35	1.35
8	6/13/76	19	17	0.226	1.5093	3.647	1.41	1.41
8	6/13/76	19	18	0.223	1.4824	3.582	1.47	1.47
8	6/13/76	19	19	0.216	1.4286	3.452	1.53	1.53
8	6/13/76	19	20	0.210	1.3748	3.322	1.59	1.59
8	6/13/76	19	21	0.204	1.3210	3.192	1.64	1.64
8	6/13/76	19	22	0.195	1.2403	2.997	1.69	1.69
8	6/13/76	19	23	0.186	1.1596	2.802	1.74	1.74
8	6/13/76	19	24	0.180	1.1171	2.699	1.79	1.79
8	6/13/76	19	25	0.174	1.0860	2.624	1.83	1.83
8	6/13/76	19	26	0.171	1.0704	2.586	1.87	1.87
8	6/13/76	19	27	0.168	1.0548	2.549	1.92	1.92
8	6/13/76	19	28	0.165	1.0392	2.511	1.96	1.96
8	6/13/76	19	30	0.162	1.0237	2.473	2.04	2.04
8	6/13/76	19	33	0.165	1.0392	2.511	2.17	2.17
8	6/13/76	19	34	0.168	1.0548	2.549	2.21	2.21
8	6/13/76	19	35	0.174	1.0860	2.624	2.25	2.25
8	6/13/76	19	36	0.183	1.1327	2.737	2.30	2.30
8	6/13/76	19	37	0.195	1.2403	2.997	2.34	2.34
8	6/13/76	19	38	0.210	1.3748	3.322	2.40	2.40
8	6/13/76	19	39	0.219	1.4555	3.517	2.45	2.45
8	6/13/76	19	40	0.232	1.5631	3.777	2.51	2.51
8	6/13/76	19	41	0.241	1.6438	3.972	2.58	2.58
8	6/13/76	19	42	0.247	1.7033	4.115	2.65	2.65
8	6/13/76	19	46	0.247	1.7033	4.115	2.92	2.92
8	6/13/76	19	47	0.241	1.6438	3.972	2.99	2.99
8	6/13/76	19	48	0.238	1.6169	3.907	3.05	3.05
8	6/13/76	19	49	0.235	1.5900	3.842	3.12	3.12
8	6/13/76	19	50	0.229	1.5362	3.712	3.18	3.18
8	6/13/76	19	51	0.223	1.4824	3.582	3.24	3.24
8	6/13/76	19	52	0.219	1.4555	3.517	3.30	3.30
8	6/13/76	19	53	0.213	1.4017	3.387	3.36	3.36
8	6/13/76	19	54	0.207	1.3479	3.257	3.41	3.41
8	6/13/76	19	55	0.201	1.2941	3.127	3.47	3.47
8	6/13/76	19	56	0.195	1.2403	2.997	3.52	3.52
8	6/13/76	19	57	0.183	1.1327	2.737	3.57	3.57
8	6/13/76	19	58	0.177	1.1015	2.661	3.61	3.61
8	6/13/76	19	59	0.171	1.0704	2.586	3.66	3.66
8	6/13/76	20	0	0.162	1.0237	2.473	3.70	3.70
8	6/13/76	20	1	0.155	0.9925	2.398	3.74	3.74
8	6/13/76	20	2	0.149	0.9614	2.323	3.78	3.78
8	6/13/76	20	3	0.146	0.9458	2.285	3.82	3.82
8	6/13/76	20	4	0.143	0.9302	2.247	3.85	3.85
8	6/13/76	20	5	0.137	0.8991	2.172	3.89	3.89
8	6/13/76	20	6	0.134	0.8835	2.136	3.93	3.93
8	6/13/76	20	7	0.131	0.8679	2.097	3.96	3.96
8	6/13/76	20	8	0.128	0.8523	2.059	4.00	4.00
8	6/13/76	20	9	0.125	0.8368	2.022	4.03	4.03
8	6/13/76	20	10	0.122	0.8212	1.984	4.06	4.06
8	6/13/76	20	11	0.119	0.7957	1.923	4.10	4.10
8	6/13/76	20	12	0.116	0.7702	1.861	4.13	4.13
8	6/13/76	20	13	0.113	0.7447	1.799	4.16	4.16
8	6/13/76	20	15	0.110	0.7192	1.738	4.22	4.22
8	6/13/76	20	19	0.113	0.7447	1.799	4.33	4.33
8	6/13/76	20	20	0.116	0.7702	1.861	4.37	4.37
8	6/13/76	20	21	0.119	0.7957	1.923	4.40	4.40
8	6/13/76	20	22	0.125	0.8368	2.022	4.43	4.43
8	6/13/76	20	23	0.131	0.8679	2.097	4.46	4.46
8	6/13/76	20	24	0.140	0.9146	2.210	4.50	4.50
8	6/13/76	20	25	0.149	0.9614	2.323	4.54	4.54
8	6/13/76	20	26	0.162	1.0237	2.473	4.58	4.58
8	6/13/76	20	27	0.177	1.1015	2.661	4.62	4.62
8	6/13/76	20	28	0.195	1.2403	2.997	4.67	4.67
8	6/13/76	20	29	0.213	1.4017	3.387	4.72	4.72
8	6/13/76	20	30	0.232	1.5631	3.777	4.78	4.78
8	6/13/76	20	31	0.244	1.6707	4.037	4.85	4.85
8	6/13/76	20	32	0.253	1.7684	4.273	4.92	4.92
8	6/13/76	20	33	0.256	1.8010	4.351	4.99	4.99
8	6/13/76	20	35	0.253	1.7684	4.273	5.13	5.13
8	6/13/76	20	36	0.250	1.7358	4.194	5.20	5.20
8	6/13/76	20	37	0.247	1.7033	4.115	5.27	5.27
8	6/13/76	20	38	0.244	1.6707	4.037	5.34	5.34
8	6/13/76	20	39	0.241	1.6438	3.972	5.41	5.41
8	6/13/76	20	40	0.235	1.5900	3.842	5.47	5.47
8	6/13/76	20	41	0.232	1.5631	3.777	5.53	5.53
8	6/13/76	20	42	0.229	1.5362	3.712	5.60	5.60
8	6/13/76	20	43	0.223	1.4824	3.582	5.66	5.66
8	6/13/76	20	44	0.219	1.4555	3.517	5.72	5.72
8	6/13/76	20	46	0.216	1.4286	3.452	5.83	5.83
8	6/13/76	20	48	0.213	1.4017	3.387	5.95	5.95

TABLE D1- 5. CONCLUDED

SITE	DATE	HOUR	MIN	STAGE M	RUNOFF RATE CMS	RUNOFF INTENSITY MMPH	STORM RUNOFF MM	ANNUAL RUNOFF MM
8	6/13/76	20	51	0.210	1.3748	3.322	6.11	6.11
8	6/13/76	20	53	0.207	1.3479	3.257	6.22	6.22
8	6/13/76	20	56	0.204	1.3210	3.192	6.38	6.38
8	6/13/76	20	59	0.201	1.2941	3.127	6.54	6.54
8	6/13/76	21	1	0.198	1.2672	3.062	6.65	6.65
8	6/13/76	21	5	0.195	1.2403	2.997	6.85	6.85
8	6/13/76	21	6	0.192	1.2134	2.932	6.90	6.90
8	6/13/76	21	7	0.186	1.1596	2.802	6.94	6.94
8	6/13/76	21	9	0.183	1.1327	2.737	7.04	7.04
8	6/13/76	21	10	0.180	1.1171	2.699	7.08	7.08
8	6/13/76	21	11	0.177	1.1015	2.661	7.13	7.13
8	6/13/76	21	12	0.174	1.0860	2.624	7.17	7.17
8	6/13/76	21	14	0.171	1.0704	2.586	7.26	7.26
8	6/13/76	21	15	0.168	1.0548	2.549	7.30	7.30
8	6/13/76	21	18	0.165	1.0392	2.511	7.43	7.43
8	6/13/76	21	21	0.162	1.0237	2.473	7.55	7.55
8	6/13/76	21	23	0.158	1.0081	2.436	7.63	7.63
8	6/13/76	21	26	0.155	0.9925	2.398	7.75	7.75
8	6/13/76	21	27	0.152	0.9769	2.360	7.79	7.79
8	6/13/76	21	29	0.149	0.9614	2.323	7.87	7.87
8	6/13/76	21	30	0.146	0.9458	2.285	7.91	7.91
8	6/13/76	21	31	0.143	0.9302	2.247	7.95	7.95
8	6/13/76	21	32	0.140	0.9146	2.210	7.99	7.99
8	6/13/76	21	33	0.137	0.8991	2.172	8.02	8.02
8	6/13/76	21	34	0.134	0.8835	2.135	8.06	8.06
8	6/13/76	21	35	0.128	0.8523	2.059	8.09	8.09
8	6/13/76	21	36	0.125	0.8368	2.022	8.13	8.13
8	6/13/76	21	37	0.122	0.8212	1.984	8.16	8.16
8	6/13/76	21	38	0.119	0.7957	1.923	8.19	8.19
8	6/13/76	21	39	0.116	0.7702	1.861	8.22	8.22
8	6/13/76	21	40	0.113	0.7447	1.799	8.25	8.25
8	6/13/76	21	41	0.107	0.6938	1.676	8.28	8.[illegible]
8	6/13/76	21	42	0.104	0.6683	1.615	8.31	8.3[illegible]
8	6/13/76	21	43	0.101	0.6428	1.553	8.34	8.34
8	6/13/76	21	45	0.098	0.6173	1.491	8.39	8.39
8	6/13/76	21	46	0.094	0.5918	1.430	8.41	8.41
8	6/13/76	21	47	0.091	0.5663	1.368	8.44	8.44
8	6/13/76	21	48	0.088	0.5210	1.259	8.46	8.46
8	6/13/76	21	50	0.085	0.4757	1.149	8.50	8.50
8	6/13/76	21	52	0.082	0.4304	1.040	8.53	8.53
8	6/13/76	21	54	0.079	0.3851	0.930	8.57	8.57
8	6/13/76	21	56	0.076	0.3398	0.821	8.60	8.60
8	6/13/76	21	58	0.073	0.2945	0.712	8.62	8.62
8	6/13/76	22	0	0.070	0.2492	0.602	8.64	8.64
8	6/13/76	22	3	0.067	0.2039	0.493	8.67	8.67
8	6/13/76	22	6	0.064	0.1586	0.383	8.69	8.69
8	6/13/76	22	10	0.061	0.1133	0.274	8.72	8.72
8	6/13/76	22	13	0.058	0.1048	0.253	8.73	8.73
8	6/13/76	22	16	0.055	0.0963	0.233	8.74	8.74
8	6/13/76	22	20	0.052	0.0878	0.212	8.76	8.76
8	6/13/76	22	23	0.049	0.0793	0.192	8.77	8.77
8	6/13/76	22	26	0.046	0.0708	0.171	8.77	8.77
8	6/13/76	22	30	0.043	0.0623	0.151	8.79	8.79
8	6/13/76	22	34	0.040	0.0538	0.130	8.79	8.79
8	6/13/76	22	40	0.037	0.0453	0.109	8.81	8.81
8	6/13/76	22	45	0.034	0.0368	0.089	8.81	8.81
8	6/13/76	22	49	0.030	0.0283	0.068	8.82	8.82
8	6/13/76	22	54	0.027	0.0255	0.062	8.83	8.83
8	6/13/76	23	0	0.024	0.0227	0.055	8.83	8.83
8	6/13/76	23	8	0.021	0.0198	0.048	8.84	8.84
8	6/13/76	23	15	0.018	0.0170	0.041	8.84	8.84
8	6/13/76	23	33	0.015	0.0142	0.034	8.85	8.85
8	6/13/76	23	55	0.012	0.0113	0.027	8.87	8.87
8	6/13/76	24	0	0.009	0.0085	0.021	8.87	8.87
8	6/14/76	0	17	0.006	0.0057	0.014	8.87	8.87
8	6/14/76	0	32	0.003	0.0028	0.007	8.88	8.88
8	6/14/76	0	45	0.0	0.0	0.0	8.88	8.88

TABLE D1-6. FOUR MILE CREEK WATERSHED RUNOFF DATA FOR 1977 SITE 1

SITE	DATE	HOUR	MIN	STAGE M	RUNOFF RATE CMS	RUNOFF INTENSITY MMPH	STORM RUNOFF MM	ANNUAL RUNOFF MM
1	4/19/77	17	9	0.0	0.0	0.0	0.0	0.0
1	4/19/77	17	10	0.049	0.0057	0.409	0.00	0.00
1	4/19/77	17	11	0.082	0.0136	0.967	0.01	0.01
1	4/19/77	17	12	0.152	0.0402	2.866	0.05	0.05
1	4/19/77	17	13	0.524	0.4938	35.205	0.36	0.36
1	4/19/77	17	14	0.509	0.4635	33.045	0.93	0.93
1	4/19/77	17	15	0.488	0.4219	30.078	1.46	1.46
1	4/19/77	17	16	0.463	0.3789	27.009	1.93	1.93
1	4/19/77	17	17	0.433	0.3273	23.335	2.35	2.35
1	4/19/77	17	18	0.408	0.2891	20.610	2.72	2.72
1	4/19/77	17	19	0.375	0.2409	17.172	3.04	3.04
1	4/19/77	17	20	0.364	0.2025	14.433	3.30	3.30
1	4/19/77	17	21	0.317	0.1710	12.192	3.52	3.52
1	4/19/77	17	22	0.296	0.1483	10.570	3.71	3.71
1	4/19/77	17	23	0.265	0.1188	8.468	3.87	3.87
1	4/19/77	17	24	0.241	0.0976	6.960	4.00	4.00
1	4/19/77	17	25	0.219	0.0814	5.802	4.10	4.10
1	4/19/77	17	26	0.198	0.0668	4.764	4.19	4.19
1	4/19/77	17	27	0.183	0.0569	4.057	4.27	4.27
1	4/19/77	17	28	0.168	0.0486	3.462	4.33	4.33
1	4/19/77	17	29	0.149	0.0389	2.770	4.38	4.38
1	4/19/77	17	30	0.134	0.0321	2.285	4.42	4.42
1	4/19/77	17	31	0.122	0.0266	1.898	4.46	4.46
1	4/19/77	17	32	0.113	0.0234	1.670	4.49	4.49
1	4/19/77	17	33	0.101	0.0192	1.368	4.51	4.51
1	4/19/77	17	34	0.091	0.0160	1.141	4.53	4.53
1	4/19/77	17	35	0.082	0.0136	0.967	4.55	4.55
1	4/19/77	17	36	0.073	0.0111	0.793	4.56	4.56
1	4/19/77	17	37	0.067	0.0095	0.677	4.58	4.58
1	4/19/77	17	38	0.061	0.0079	0.561	4.59	4.59
1	4/19/77	17	39	0.055	0.0068	0.485	4.60	4.60
1	4/19/77	17	40	0.049	0.0057	0.409	4.60	4.60
1	4/19/77	17	41	0.046	0.0052	0.370	4.61	4.61
1	4/19/77	17	42	0.040	0.0041	0.294	4.62	4.62
1	4/19/77	17	43	0.037	0.0036	0.256	4.62	4.62
1	4/19/77	17	44	0.034	0.0031	0.218	4.62	4.62
1	4/19/77	17	45	0.030	0.0025	0.180	4.63	4.63
1	4/19/77	17	46	0.027	0.0023	0.162	4.63	4.63
1	4/19/77	17	47	0.024	0.0020	0.144	4.63	4.63
1	4/19/77	17	48	0.021	0.0018	0.126	4.64	4.64
1	4/19/77	17	49	0.018	0.0015	0.108	4.64	4.64
1	4/19/77	17	50	0.015	0.0013	0.090	4.64	4.64
1	4/19/77	17	52	0.012	0.0010	0.072	4.64	4.64
1	4/19/77	17	54	0.009	0.0008	0.054	4.64	4.64
1	4/19/77	17	57	0.006	0.0005	0.036	4.65	4.65
1	4/19/77	18	1	0.003	0.0003	0.018	4.65	4.65
1	4/19/77	18	5	0.0	0.0	0.0	4.65	4.65
1	8/ 5/77	11	35	0.0	0.0	0.0	0.0	4.65
1	8/ 5/77	11	36	0.006	0.0005	0.036	0.00	4.65
1	8/ 5/77	11	39	0.009	0.0008	0.054	0.00	4.65

SITE	DATE	HOUR	MIN	STAGE M	RUNOFF RATE CMS	RUNOFF INTENSITY MMPH	STORM RUNOFF MM	ANNUAL RUNOFF MM
1	8/ 5/77	11	43	0.012	0.0010	0.072	0.01	4.65
1	8/ 5/77	11	44	0.024	0.0020	0.144	0.01	4.66
1	8/ 5/77	11	45	0.043	0.0047	0.332	0.01	4.66
1	8/ 5/77	11	46	0.049	0.0057	0.409	0.02	4.67
1	8/ 5/77	11	47	0.052	0.0063	0.447	0.03	4.67
1	8/ 5/77	11	50	0.049	0.0057	0.409	0.05	4.70
1	8/ 5/77	11	53	0.046	0.0052	0.370	0.07	4.71
1	8/ 5/77	11	54	0.043	0.0047	0.332	0.07	4.72
1	8/ 5/77	11	55	0.040	0.0041	0.294	0.08	4.73
1	8/ 5/77	11	56	0.037	0.0036	0.256	0.08	4.73
1	8/ 5/77	11	57	0.034	0.0031	0.218	0.09	4.73
1	8/ 5/77	11	58	0.030	0.0025	0.180	0.09	4.74
1	8/ 5/77	11	59	0.024	0.0020	0.144	0.09	4.74
1	8/ 5/77	12	0	0.021	0.0018	0.126	0.09	4.74
1	8/ 5/77	12	1	0.018	0.0015	0.108	0.10	4.74
1	8/ 5/77	12	2	0.015	0.0013	0.090	0.10	4.75
1	8/ 5/77	12	3	0.012	0.0010	0.072	0.10	4.75
1	8/ 5/77	12	5	0.009	0.0008	0.054	0.10	4.75
1	8/ 5/77	12	6	0.006	0.0005	0.036	0.10	4.75
1	8/ 5/77	12	10	0.003	0.0003	0.018	0.10	4.75
1	8/ 5/77	12	16	0.0	0.0	0.0	0.10	4.75
1	8/ 6/77	0	13	0.0	0.0	0.0	0.0	4.75
1	8/ 6/77	0	14	0.003	0.0003	0.018	0.00	4.75
1	8/ 6/77	0	20	0.003	0.0003	0.018	0.00	4.76
1	8/ 6/77	0	21	0.006	0.0005	0.036	0.00	4.76
1	8/ 6/77	0	22	0.012	0.0010	0.072	0.00	4.76
1	8/ 6/77	0	23	0.018	0.0015	0.108	0.00	4.76
1	8/ 6/77	0	24	0.024	0.0020	0.144	0.01	4.76
1	8/ 6/77	0	25	0.030	0.0025	0.180	0.01	4.76
1	8/ 6/77	0	26	0.034	0.0031	0.218	0.01	4.77
1	8/ 6/77	0	27	0.037	0.0036	0.256	0.02	4.77
1	8/ 6/77	0	28	0.040	0.0041	0.294	0.02	4.77
1	8/ 6/77	0	31	0.037	0.0036	0.256	0.04	4.79
1	8/ 6/77	0	32	0.034	0.0031	0.218	0.04	4.79
1	8/ 6/77	0	33	0.030	0.0025	0.180	0.04	4.80
1	8/ 6/77	0	34	0.027	0.0023	0.162	0.03	4.80
1	8/ 6/77	0	35	0.024	0.0020	0.144	0.05	4.80
1	8/ 6/77	0	36	0.021	0.0018	0.126	0.05	4.80
1	8/ 6/77	0	37	0.018	0.0015	0.108	0.05	4.81
1	8/ 6/77	0	39	0.015	0.0013	0.090	0.06	4.81
1	8/ 6/77	0	41	0.012	0.0010	0.072	0.06	4.81
1	8/ 6/77	0	43	0.009	0.0008	0.054	0.06	4.81
1	8/ 6/77	0	44	0.006	0.0005	0.036	0.06	4.81
1	8/ 6/77	0	48	0.003	0.0003	0.018	0.06	4.82
1	8/ 6/77	0	51	0.0	0.0	0.0	0.06	4.82
1	8/ 6/77	1	5	0.0	0.0	0.0	0.06	4.82
1	8/ 6/77	1	7	0.003	0.0003	0.018	0.06	4.82
1	8/ 6/77	1	14	0.003	0.0003	0.018	0.07	4.82
1	8/ 6/77	1	15	0.006	0.0005	0.036	0.07	4.82
1	8/ 6/77	1	16	0.015	0.0013	0.090	0.07	4.82

TABLE D1- 6. CONTINUED

SITE	DATE	HOUR	MIN	STAGE M	RUNOFF RATE CMS	RUNOFF INTENSITY MMPH	STORM RUNOFF MM	ANNUAL RUNOFF MM
1	8/ 8/77	1	17	0.024	0.0020	0.144	0.07	4.82
1	8/ 8/77	1	18	0.030	0.0025	0.180	0.07	4.82
1	8/ 8/77	1	19	0.034	0.0031	0.218	0.07	4.83
1	8/ 8/77	1	20	0.037	0.0036	0.256	0.08	4.83
1	8/ 8/77	1	22	0.034	0.0031	0.218	0.09	4.84
1	8/ 8/77	1	23	0.030	0.0025	0.180	0.09	4.84
1	8/ 8/77	1	25	0.027	0.0023	0.162	0.10	4.85
1	8/ 8/77	1	26	0.024	0.0020	0.144	0.10	4.85
1	8/ 8/77	1	27	0.021	0.0018	0.126	0.10	4.85
1	8/ 8/77	1	29	0.018	0.0015	0.108	0.10	4.86
1	8/ 8/77	1	31	0.015	0.0013	0.090	0.11	4.86
1	8/ 8/77	1	33	0.012	0.0010	0.072	0.11	4.86
1	8/ 8/77	1	35	0.009	0.0008	0.054	0.11	4.87
1	8/ 8/77	1	37	0.006	0.0005	0.036	0.11	4.87
1	8/ 8/77	1	39	0.003	0.0003	0.018	0.11	4.87
1	8/ 8/77	1	45	0.0	0.0	0.0	0.12	4.87
1	8/ 9/77	8	3	0.0	0.0	0.0	0.0	4.87
1	8/ 9/77	8	4	0.003	0.0003	0.018	0.00	4.87
1	8/ 9/77	8	6	0.006	0.0005	0.036	0.00	4.87
1	8/ 9/77	8	10	0.009	0.0008	0.054	0.00	4.87
1	8/ 9/77	8	16	0.012	0.0010	0.072	0.01	4.88
1	8/ 9/77	8	29	0.012	0.0010	0.072	0.03	4.89
1	8/ 9/77	8	36	0.009	0.0008	0.054	0.03	4.90
1	8/ 9/77	8	42	0.006	0.0005	0.036	0.04	4.91
1	8/ 9/77	8	48	0.003	0.0003	0.018	0.04	4.91
1	8/ 9/77	9	15	0.0	0.0	0.0	0.04	4.91
1	8/15/77	20	38	0.0	0.0	0.0	0.0	4.91
1	8/15/77	20	39	0.006	0.0005	0.036	0.00	4.91
1	8/15/77	20	40	0.0.2	0.0010	0.072	0.00	4.91
1	8/15/77	20	42	0.015	0.0013	0.090	0.00	4.92
1	8/15/77	20	45	0.015	0.0013	0.090	0.01	4.92
1	8/15/77	20	47	0.012	0.0010	0.072	0.01	4.92
1	8/15/77	20	50	0.009	0.0008	0.054	0.01	4.93
1	8/15/77	20	53	0.006	0.0005	0.036	0.02	4.93
1	8/15/77	20	56	0.003	0.0003	0.018	0.02	4.93
1	8/15/77	20	59	0.0	0.0	0.0	0.02	4.93
1	8/15/77	22	9	0.0	0.0	0.0	0.02	4.93
1	8/15/77	22	10	0.003	0.0003	0.018	0.02	4.93
1	8/15/77	22	11	0.006	0.0005	0.036	0.02	4.93
1	8/15/77	22	13	0.009	0.0008	0.054	0.02	4.93
1	8/15/77	22	14	0.037	0.0036	0.256	0.02	4.94
1	8/15/77	22	15	0.061	0.0079	0.561	0.03	4.94
1	8/15/77	22	16	0.088	0.0152	1.083	0.04	4.96
1	8/15/77	22	17	0.122	0.0266	1.896	0.07	4.98
1	8/15/77	22	18	0.162	0.0452	3.224	0.11	5.02
1	8/15/77	22	19	0.201	0.0686	4.905	0.16	5.09
1	8/15/77	22	20	0.244	0.1000	7.126	0.28	5.19
1	8/15/77	22	21	0.274	0.1269	9.043	0.41	5.33
1	8/15/77	22	22	0.287	0.1391	9.915	0.57	5.49
1	8/15/77	22	23	0.290	0.1422	10.134	0.74	5.65
1	8/15/77	22	24	0.293	0.1452	10.352	0.91	5.82
1	8/15/77	22	25	0.302	0.1544	11.006	1.09	6.00
1	8/15/77	22	26	0.341	0.1988	14.171	1.30	6.21
1	8/15/77	22	27	0.367	0.2578	18.376	1.57	6.48
1	8/15/77	22	28	0.405	0.2844	20.277	1.89	6.80
1	8/15/77	22	29	0.399	0.2751	19.611	2.22	7.14
1	8/15/77	22	30	0.387	0.2578	18.376	2.54	7.45
1	8/15/77	22	31	0.375	0.2409	17.172	2.84	7.75
1	8/15/77	22	32	0.360	0.2209	15.745	3.11	8.02
1	8/15/77	22	33	0.335	0.1914	13.646	3.36	8.27
1	8/15/77	22	34	0.311	0.1642	11.708	3.57	8.48
1	8/15/77	22	35	0.287	0.1391	9.915	3.75	8.66
1	8/15/77	22	36	0.262	0.1161	8.276	3.90	8.81
1	8/15/77	22	37	0.241	0.0976	6.960	4.03	8.94
1	8/15/77	22	38	0.223	0.0837	5.967	4.13	9.05
1	8/15/77	22	39	0.204	0.0708	5.047	4.22	9.14
1	8/15/77	22	40	0.192	0.0629	4.481	4.30	9.22
1	8/15/77	22	41	0.177	0.0536	3.819	4.37	9.29
1	8/15/77	22	42	0.165	0.0469	3.343	4.43	9.35
1	8/15/77	22	43	0.152	0.0402	2.866	4.48	9.40
1	8/15/77	22	44	0.140	0.0348	2.479	4.53	9.44
1	8/15/77	22	45	0.128	0.0293	2.091	4.57	9.48
1	8/15/77	22	46	0.119	0.0256	1.822	4.60	9.51
1	8/15/77	22	47	0.110	0.0224	1.595	4.63	9.54
1	8/15/77	22	48	0.101	0.0192	1.368	4.65	9.57
1	8/15/77	22	49	0.094	0.0171	1.216	4.67	9.59
1	8/15/77	22	50	0.085	0.0144	1.025	4.69	9.61
1	8/15/77	22	51	0.079	0.0127	0.909	4.71	9.62
1	8/15/77	22	52	0.073	0.0111	0.793	4.72	9.64
1	8/15/77	22	53	0.067	0.0095	0.677	4.74	9.65
1	8/15/77	22	54	0.061	0.0079	0.561	4.75	9.66
1	8/15/77	22	55	0.058	0.0073	0.523	4.76	9.67
1	8/15/77	22	56	0.052	0.0063	0.447	4.76	9.68
1	8/15/77	22	57	0.049	0.0057	0.409	4.77	9.68
1	8/15/77	22	58	0.043	0.0047	0.332	4.78	9.69
1	8/15/77	22	59	0.040	0.0041	0.294	4.78	9.70
1	8/15/77	23	0	0.037	0.0036	0.256	4.79	9.70
1	8/15/77	23	1	0.034	0.0031	0.218	4.79	9.70
1	8/15/77	23	2	0.030	0.0025	0.180	4.79	9.71
1	8/15/77	23	4	0.027	0.0023	0.162	4.80	9.71
1	8/15/77	23	6	0.024	0.0020	0.144	4.80	9.72
1	8/15/77	23	8	0.021	0.0018	0.126	4.81	9.72
1	8/15/77	23	10	0.018	0.0015	0.108	4.81	9.73
1	8/15/77	23	13	0.015	0.0013	0.090	4.82	9.73
1	8/15/77	23	16	0.012	0.0010	0.072	4.82	9.74
1	8/15/77	23	19	0.009	0.0008	0.054	4.82	9.74
1	8/15/77	23	21	0.006	0.0005	0.036	4.83	9.74
1	8/15/77	23	24	0.003	0.0003	0.018	4.83	9.74
1	8/15/77	23	27	0.0	0.0	0.0	4.83	9.74

TABLE D1- 6. CONTINUED

SITE	DATE	HOUR	MIN	STAGE M	RUNOFF RATE CMS	RUNOFF INTENSITY MMPH	STORM RUNOFF MM	ANNUAL RUNOFF MM
1	8/25/77	22	57	0.0	0.0	0.0	0.0	9.74
1	8/25/77	22	58	0.012	0.0010	0.072	0.00	9.74
1	8/25/77	22	59	0.018	0.0015	0.108	0.00	9.74
1	8/25/77	23	0	0.034	0.0031	0.218	0.00	9.75
1	8/25/77	23	1	0.052	0.0063	0.447	0.01	9.75
1	8/25/77	23	2	0.070	0.0103	0.735	0.02	9.76
1	8/25/77	23	3	0.079	0.0127	0.909	0.03	9.78
1	8/25/77	23	4	0.085	0.0144	1.025	0.05	9.79
1	8/25/77	23	5	0.088	0.0152	1.083	0.07	9.81
1	8/25/77	23	6	0.091	0.0160	1.141	0.09	9.83
1	8/25/77	23	7	0.098	0.0181	1.292	0.11	9.85
1	8/25/77	23	9	0.101	0.0192	1.366	0.15	9.89
1	8/25/77	23	11	0.098	0.0181	1.292	0.20	9.94
1	8/25/77	23	12	0.091	0.0160	1.141	0.22	9.96
1	8/25/77	23	13	0.085	0.0144	1.025	0.23	9.98
1	8/25/77	23	14	0.082	0.0136	0.967	0.25	9.99
1	8/25/77	23	15	0.076	0.0119	0.851	0.27	10.01
1	8/25/77	23	16	0.070	0.0103	0.735	0.28	10.02
1	8/25/77	23	17	0.064	0.0087	0.619	0.29	10.03
1	8/25/77	23	18	0.058	0.0073	0.523	0.30	10.04
1	8/25/77	23	19	0.055	0.0068	0.485	0.31	10.05
1	8/25/77	23	22	0.058	0.0073	0.523	0.33	10.07
1	8/25/77	23	24	0.061	0.0079	0.561	0.35	10.09
1	8/25/77	23	26	0.058	0.0073	0.523	0.37	10.11
1	8/25/77	23	28	0.055	0.0068	0.485	0.39	10.13
1	8/25/77	23	29	0.052	0.0063	0.447	0.39	10.14
1	8/25/77	23	30	0.049	0.0057	0.409	0.40	10.14
1	8/25/77	23	31	0.043	0.0047	0.332	0.41	10.15
1	8/25/77	23	32	0.040	0.0041	0.294	0.41	10.15
1	8/25/77	23	33	0.037	0.0036	0.256	0.42	10.16
1	8/25/77	23	34	0.034	0.0031	0.218	0.42	10.16
1	8/25/77	23	35	0.030	0.0025	0.180	0.42	10.17
1	8/25/77	23	36	0.027	0.0023	0.162	0.43	10.17
1	8/25/77	23	37	0.024	0.0020	0.144	0.43	10.17
1	8/25/77	23	38	0.021	0.0018	0.126	0.43	10.17
1	8/25/77	23	40	0.018	0.0015	0.108	0.44	10.18
1	8/25/77	23	42	0.015	0.0013	0.090	0.44	10.18
1	8/25/77	23	45	0.012	0.0010	0.072	0.44	10.18
1	8/25/77	23	49	0.009	0.0008	0.054	0.45	10.19
1	8/25/77	23	51	0.006	0.0005	0.036	0.45	10.19
1	8/25/77	23	53	0.003	0.0003	0.018	0.45	10.19
1	8/25/77	23	56	0.0	0.0	0.0	0.45	10.19
1	8/26/77	0	17	0.0	0.0	0.0	0.45	10.19
1	8/26/77	0	18	0.006	0.0005	0.036	0.45	10.19
1	8/26/77	0	20	0.009	0.0008	0.054	0.45	10.19
1	8/26/77	0	24	0.012	0.0010	0.072	0.46	10.20
1	8/26/77	0	25	0.018	0.0015	0.108	0.46	10.20
1	8/26/77	0	26	0.308	0.1606	11.466	0.55	10.30
1	8/26/77	0	27	0.040	0.0041	0.294	0.65	10.39
1	8/26/77	0	28	0.046	0.0052	0.370	0.66	10.40
1	8/26/77	0	30	0.049	0.0057	0.409	0.67	10.41
1	8/26/77	0	31	0.046	0.0052	0.370	0.68	10.42
1	8/26/77	0	32	0.043	0.0047	0.332	0.68	10.42
1	8/26/77	0	33	0.040	0.0041	0.294	0.69	10.43
1	8/26/77	0	34	0.037	0.0036	0.256	0.69	10.43
1	8/26/77	0	35	0.034	0.0031	0.218	0.70	10.44
1	8/26/77	0	36	0.030	0.0025	0.180	0.70	10.44
1	8/26/77	0	38	0.027	0.0023	0.162	0.71	10.45
1	8/26/77	0	40	0.024	0.0020	0.144	0.71	10.45
1	8/26/77	0	41	0.021	0.0018	0.126	0.71	10.45
1	8/26/77	0	43	0.018	0.0015	0.108	0.72	10.46
1	8/26/77	0	45	0.015	0.0013	0.090	0.72	10.46
1	8/26/77	0	48	0.012	0.0010	0.072	0.72	10.47
1	8/26/77	0	53	0.009	0.0008	0.054	0.73	10.47
1	8/26/77	0	56	0.006	0.0005	0.036	0.73	10.47
1	8/26/77	0	57	0.003	0.0003	0.018	0.73	10.47
1	8/26/77	1	0	0.0	0.0	0.0	0.73	10.47
1	8/26/77	1	3	0.003	0.0003	0.018	0.73	10.47
1	8/26/77	1	7	0.006	0.0005	0.036	0.73	10.48
1	8/26/77	1	14	0.006	0.0005	0.036	0.74	10.48
1	8/26/77	1	17	0.003	0.0003	0.018	0.74	10.48
1	8/26/77	1	20	0.0	0.0	0.0	0.74	10.48
1	8/27/77	8	5	0.0	0.0	0.0	0.0	10.48
1	8/27/77	8	6	0.003	0.0003	0.018	0.00	10.48
1	8/27/77	8	7	0.006	0.0005	0.036	0.00	10.48
1	8/27/77	8	9	0.009	0.0008	0.054	0.00	10.48
1	8/27/77	8	12	0.012	0.0010	0.072	0.01	10.49
1	8/27/77	8	17	0.009	0.0008	0.054	0.01	10.49
1	8/27/77	8	21	0.012	0.0010	0.072	0.01	10.50
1	8/27/77	8	23	0.015	0.0013	0.090	0.02	10.50
1	8/27/77	8	28	0.012	0.0010	0.072	0.02	10.51
1	8/27/77	8	33	0.009	0.0008	0.054	0.03	10.51
1	8/27/77	8	36	0.006	0.0005	0.036	0.03	10.51
1	8/27/77	8	39	0.003	0.0003	0.018	0.03	10.51
1	8/27/77	8	43	0.0	0.0	0.0	0.03	10.52
1	8/28/77	0	37	0.0	0.0	0.0	0.0	10.52
1	8/28/77	0	38	0.006	0.0005	0.036	0.00	10.52
1	8/28/77	0	39	0.009	0.0008	0.054	0.00	10.52
1	8/28/77	0	40	0.012	0.0010	0.072	0.00	10.52
1	8/28/77	0	41	0.018	0.0015	0.108	0.00	10.52
1	8/28/77	0	42	0.021	0.0018	0.126	0.01	10.52
1	8/28/77	0	43	0.030	0.0025	0.180	0.01	10.52
1	8/28/77	0	44	0.037	0.0036	0.256	0.01	10.53
1	8/28/77	0	45	0.043	0.0047	0.332	0.02	10.53
1	8/28/77	0	46	0.046	0.0052	0.370	0.02	10.54
1	8/28/77	0	48	0.049	0.0057	0.409	0.04	10.56
1	8/28/77	0	50	0.046	0.0052	0.370	0.05	10.56
1	8/28/77	0	52	0.043	0.0047	0.332	0.06	10.58
1	8/28/77	0	55	0.040	0.0041	0.294	0.08	10.59

TABLE D1- 6. CONTINUED

SITE	DATE	HOUR	MIN	STAGE M	RUNOFF RATE CMS	RUNOFF INTENSITY MMPH	STORM RUNOFF MM	ANNUAL RUNOFF MM
1	8/28/77	0	56	0.037	0.0036	0.256	0.08	10.60
1	8/28/77	0	58	0.034	0.0031	0.218	0.09	10.60
1	8/28/77	1	1	0.030	0.0025	0.180	0.10	10.61
1	8/28/77	1	3	0.027	0.0023	0.162	0.10	10.62
1	8/28/77	1	5	0.024	0.0020	0.144	0.11	10.62
1	8/28/77	1	8	0.021	0.0018	0.126	0.12	10.63
1	8/28/77	1	10	0.018	0.0015	0.108	0.12	10.64
1	8/28/77	1	15	0.018	0.0015	0.108	0.13	10.64
1	8/28/77	1	22	0.015	0.0013	0.090	0.14	10.65
1	8/28/77	1	27	0.012	0.0010	0.072	0.15	10.66
1	8/28/77	1	33	0.009	0.0008	0.054	0.15	10.67
1	8/28/77	1	39	0.006	0.0005	0.036	0.16	10.67
1	8/28/77	1	43	0.003	0.0003	0.018	0.16	10.67
1	8/28/77	1	48	0.0	0.0	0.0	0.16	10.68
1	8/31/77	22	28	0.0	0.0	0.0	0.0	10.68
1	8/31/77	22	29	0.030	0.0025	0.180	0.00	10.68
1	8/31/77	22	30	0.055	0.0068	0.485	0.01	10.68
1	8/31/77	22	31	0.067	0.0095	0.677	0.02	10.69
1	8/31/77	22	32	0.070	0.0103	0.735	0.03	10.70
1	8/31/77	22	33	0.073	0.0111	0.793	0.04	10.72
1	8/31/77	22	35	0.070	0.0103	0.735	0.07	10.74
1	8/31/77	22	36	0.067	0.0095	0.677	0.08	10.75
1	8/31/77	22	37	0.058	0.0073	0.523	0.09	10.76
1	8/31/77	22	38	0.055	0.0068	0.485	0.10	10.77
1	8/31/77	22	39	0.049	0.0057	0.409	0.10	10.78
1	8/31/77	22	40	0.046	0.0052	0.370	0.11	10.79
1	8/31/77	22	41	0.043	0.0047	0.332	0.12	10.79
1	8/31/77	22	43	0.040	0.0041	0.294	0.13	10.80
1	8/31/77	22	44	0.037	0.0036	0.256	0.13	10.81
1	8/31/77	22	45	0.034	0.0031	0.218	0.14	10.81
1	8/31/77	22	47	0.030	0.0025	0.180	0.14	10.82
1	8/31/77	22	48	0.027	0.0023	0.162	0.15	10.82
1	8/31/77	22	49	0.024	0.0020	0.144	0.15	10.82
1	8/31/77	22	50	0.021	0.0018	0.126	0.15	10.83
1	8/31/77	22	52	0.018	0.0015	0.108	0.15	10.83
1	8/31/77	22	54	0.015	0.0013	0.090	0.16	10.83
1	8/31/77	22	57	0.012	0.0010	0.072	0.16	10.84
1	8/31/77	23	0	0.009	0.0008	0.054	0.16	10.84
1	8/31/77	23	3	0.006	0.0005	0.036	0.17	10.84
1	8/31/77	23	6	0.003	0.0003	0.018	0.17	10.84
1	8/31/77	23	10	0.0	0.0	0.0	0.17	10.84
1	9/17/77	19	25	0.0	0.0	0.0	0.0	10.84
1	9/17/77	19	26	0.006	0.0005	0.036	0.00	10.84
1	9/17/77	19	32	0.006	0.0005	0.036	0.00	10.85
1	9/17/77	19	33	0.018	0.0015	0.108	0.01	10.85
1	9/17/77	19	34	0.027	0.0023	0.162	0.01	10.85
1	9/17/77	19	35	0.037	0.0036	0.256	0.01	10.85
1	9/17/77	19	36	0.040	0.0041	0.294	0.02	10.86
1	9/17/77	19	37	0.043	0.0047	0.332	0.02	10.86
1	9/17/77	19	39	0.040	0.0041	0.294	0.03	10.88
1	9/17/77	19	40	0.034	0.0031	0.218	0.04	10.88
1	9/17/77	19	41	0.030	0.0025	0.180	0.04	10.88
1	9/17/77	19	42	0.024	0.0020	0.144	0.04	10.89
1	9/17/77	19	43	0.021	0.0018	0.126	0.04	10.89
1	9/17/77	19	44	0.018	0.0015	0.108	0.05	10.89
1	9/17/77	19	45	0.015	0.0013	0.090	0.05	10.89
1	9/17/77	19	47	0.012	0.0010	0.072	0.05	10.89
1	9/17/77	19	48	0.009	0.0008	0.054	0.05	10.89
1	9/17/77	19	50	0.006	0.0005	0.036	0.05	10.90
1	9/17/77	19	53	0.003	0.0003	0.018	0.05	10.90
1	9/17/77	19	55	0.006	0.0005	0.036	0.05	10.90
1	9/17/77	19	58	0.006	0.0005	0.036	0.06	10.90
1	9/17/77	19	59	0.012	0.0010	0.072	0.06	10.90
1	9/17/77	20	0	0.024	0.0020	0.144	0.06	10.90
1	9/17/77	20	1	0.037	0.0036	0.256	0.06	10.91
1	9/17/77	20	2	0.049	0.0057	0.409	0.07	10.91
1	9/17/77	20	3	0.058	0.0073	0.523	0.08	10.92
1	9/17/77	20	4	0.061	0.0079	0.561	0.08	10.93
1	9/17/77	20	5	0.064	0.0087	0.619	0.09	10.94
1	9/17/77	20	6	0.067	0.0095	0.677	0.11	10.95
1	9/17/77	20	8	0.064	0.0087	0.619	0.13	10.97
1	9/17/77	20	9	0.061	0.0079	0.561	0.14	10.98
1	9/17/77	20	10	0.055	0.0068	0.485	0.15	10.99
1	9/17/77	20	11	0.052	0.0063	0.447	0.15	11.00
1	9/17/77	20	12	0.046	0.0052	0.370	0.16	11.00
1	9/17/77	20	13	0.040	0.0041	0.294	0.17	11.01
1	9/17/77	20	14	0.037	0.0036	0.256	0.17	11.01
1	9/17/77	20	15	0.030	0.0025	0.180	0.17	11.02
1	9/17/77	20	16	0.027	0.0023	0.162	0.18	11.02
1	9/17/77	20	17	0.024	0.0020	0.144	0.18	11.02
1	9/17/77	20	18	0.021	0.0018	0.126	0.18	11.03
1	9/17/77	20	19	0.018	0.0015	0.108	0.18	11.03
1	9/17/77	20	20	0.015	0.0013	0.090	0.19	11.03
1	9/17/77	20	21	0.012	0.0010	0.072	0.19	11.03
1	9/17/77	20	23	0.009	0.0008	0.054	0.19	11.03
1	9/17/77	20	26	0.006	0.0005	0.036	0.19	11.03
1	9/17/77	20	29	0.003	0.0003	0.018	0.19	11.04
1	9/17/77	20	31	0.0	0.0	0.0	0.19	11.04
1	9/18/77	5	33	0.0	0.0	0.0	0.0	11.04
1	9/18/77	5	34	0.006	0.0005	0.036	0.00	11.04
1	9/18/77	5	35	0.009	0.0008	0.054	0.00	11.04
1	9/18/77	5	41	0.012	0.0010	0.072	0.01	11.04
1	9/18/77	5	55	0.015	0.0013	0.090	0.03	11.06
1	9/18/77	5	57	0.018	0.0015	0.108	0.03	11.07
1	9/18/77	5	58	0.021	0.0018	0.126	0.03	11.07
1	9/18/77	5	59	0.024	0.0020	0.144	0.03	11.07
1	9/18/77	6	0	0.030	0.0025	0.180	0.04	11.07
1	9/18/77	6	1	0.037	0.0036	0.256	0.04	11.08

TABLE D1- 6. CONCLUDED

SITE	DATE	HOUR	MIN	STAGE M	RUNOFF RATE CMS	RUNOFF INTENSITY MMPH	STORM RUNOFF MM	ANNUAL RUNOFF MM
1	9/18/77	6	2	0.040	0.0041	0.294	0.04	11.08
1	9/18/77	6	3	0.043	0.0047	0.332	0.05	11.09
1	9/18/77	6	4	0.046	0.0052	0.370	0.06	11.09
1	9/18/77	6	5	0.049	0.0057	0.409	0.06	11.10
1	9/18/77	6	6	0.052	0.0063	0.447	0.07	11.11
1	9/18/77	6	8	0.055	0.0068	0.485	0.08	11.12
1	9/18/77	6	11	0.052	0.0063	0.447	0.11	11.14
1	9/18/77	6	12	0.049	0.0057	0.409	0.12	11.15
1	9/18/77	6	14	0.046	0.0052	0.370	0.13	11.16
1	9/18/77	6	16	0.043	0.0047	0.332	0.14	11.18
1	9/18/77	6	17	0.040	0.0041	0.294	0.15	11.18
1	9/18/77	6	18	0.037	0.0036	0.256	0.15	11.19
1	9/18/77	6	19	0.034	0.0031	0.218	0.15	11.19
1	9/18/77	6	20	0.030	0.0025	0.180	0.16	11.19
1	9/18/77	6	21	0.027	0.0023	0.162	0.16	11.20
1	9/18/77	6	24	0.024	0.0020	0.144	0.17	11.20
1	9/18/77	6	27	0.027	0.0023	0.162	0.18	11.21
1	9/18/77	6	30	0.030	0.0025	0.180	0.18	11.22
1	9/18/77	6	35	0.027	0.0023	0.162	0.20	11.23
1	9/18/77	6	38	0.024	0.0020	0.144	0.21	11.24
1	9/18/77	6	44	0.021	0.0018	0.126	0.22	11.26
1	9/18/77	6	49	0.018	0.0015	0.108	0.23	11.27
1	9/18/77	6	53	0.015	0.0013	0.090	0.24	11.27
1	9/18/77	6	58	0.012	0.0010	0.072	0.24	11.28
1	9/18/77	7	2	0.009	0.0008	0.054	0.25	11.28
1	9/18/77	7	8	0.006	0.0005	0.036	0.25	11.29
1	9/18/77	7	10	0.009	0.0008	0.054	0.25	11.29
1	9/18/77	7	14	0.009	0.0008	0.054	0.26	11.29
1	9/18/77	7	15	0.012	0.0010	0.072	0.26	11.29
1	9/18/77	7	16	0.015	0.0013	0.090	0.26	11.29
1	9/18/77	7	17	0.018	0.0015	0.108	0.26	11.30
1	9/18/77	7	18	0.021	0.0018	0.126	0.26	11.30
1	9/18/77	7	19	0.024	0.0020	0.144	0.26	11.30
1	9/18/77	7	20	0.027	0.0023	0.162	0.27	11.30
1	9/18/77	7	23	0.027	0.0023	0.162	0.27	11.31
1	9/18/77	7	26	0.024	0.0020	0.144	0.28	11.32
1	9/18/77	7	28	0.021	0.0018	0.126	0.29	11.32
1	9/18/77	7	30	0.018	0.0015	0.108	0.29	11.33
1	9/18/77	7	33	0.015	0.0013	0.090	0.30	11.33
1	9/18/77	7	37	0.012	0.0010	0.072	0.30	11.34
1	9/18/77	7	41	0.009	0.0008	0.054	0.31	11.34
1	9/18/77	7	45	0.006	0.0005	0.036	0.31	11.34
1	9/18/77	7	50	0.003	0.0003	0.018	0.31	11.35
1	9/18/77	7	56	0.0	0.0	0.0	0.31	11.35
1	10/ 7/77	15	50	0.0	0.0	0.0	0.0	11.35
1	10/ 7/77	16	0	0.006	0.0005	0.036	0.00	11.35
1	10/ 7/77	16	20	0.009	0.0008	0.054	0.02	11.37
1	10/ 7/77	16	30	0.006	0.0005	0.036	0.03	11.37
1	10/ 7/77	16	40	0.0	0.0	0.0	0.03	11.38
1	10/23/77	8	56	0.0	0.0	0.0	0.0	11.38
1	10/23/77	9	20	0.009	0.0008	0.054	0.01	11.39
1	10/23/77	9	30	0.018	0.0015	0.108	0.02	11.40
1	10/23/77	9	42	0.027	0.0023	0.162	0.05	11.43
1	10/23/77	9	56	0.018	0.0015	0.108	0.08	11.46
1	10/23/77	10	10	0.009	0.0008	0.054	0.10	11.48
1	10/23/77	10	32	0.0	0.0	0.0	0.11	11.49
1	10/23/77	14	36	0.0	0.0	0.0	0.11	11.49
1	10/23/77	15	0	0.009	0.0008	0.054	0.12	11.50
1	10/23/77	15	20	0.006	0.0005	0.036	0.14	11.51
1	10/23/77	15	40	0.009	0.0008	0.054	0.15	11.53
1	10/23/77	16	0	0.006	0.0005	0.036	0.17	11.54
1	10/23/77	16	20	0.003	0.0003	0.018	0.18	11.55
1	10/23/77	16	40	0.0	0.0	0.0	0.18	11.56
1	10/23/77	17	52	0.0	0.0	0.0	0.18	11.56
1	10/23/77	18	16	0.006	0.0005	0.036	0.19	11.56
1	10/23/77	18	52	0.0	0.0	0.0	0.20	11.57
1	10/31/77	2	46	0.0	0.0	0.0	0.0	11.57
1	10/31/77	2	55	0.006	0.0005	0.036	0.00	11.58
1	10/31/77	3	2	0.012	0.0010	0.072	0.01	11.58
1	10/31/77	3	10	0.018	0.0015	0.108	0.02	11.59
1	10/31/77	3	21	0.024	0.0020	0.144	0.04	11.62
1	10/31/77	3	26	0.030	0.0025	0.180	0.06	11.63
1	10/31/77	3	31	0.037	0.0036	0.256	0.08	11.65
1	10/31/77	3	36	0.037	0.0036	0.256	0.10	11.67
1	10/31/77	3	44	0.030	0.0025	0.180	0.13	11.70
1	10/31/77	3	56	0.024	0.0020	0.144	0.16	11.73
1	10/31/77	4	16	0.024	0.0020	0.144	0.21	11.78
1	10/31/77	4	31	0.018	0.0015	0.108	0.24	11.81
1	10/31/77	4	51	0.012	0.0010	0.072	0.27	11.84
1	10/31/77	5	10	0.006	0.0005	0.036	0.28	11.86
1	10/31/77	5	38	0.0	0.0	0.0	0.29	11.87

TABLE D1- 7. FOUR MILE CREEK WATERSHED RUNOFF DATA FOR 1977 SITE 2

SITE	DATE	HOUR	MIN	STAGE M	RUNOFF RATE CMS	RUNOFF INTENSITY MMPH	STORM RUNOFF MM	ANNUAL RUNOFF MM
2	8/15/77	22	19	0.0	0.0	0.0	0.0	0.0
2	8/15/77	22	20	0.027	0.0023	0.128	0.00	0.00
2	8/15/77	22	21	0.058	0.0073	0.415	0.01	0.01
2	8/15/77	22	22	0.107	0.0213	1.204	0.02	0.02
2	8/15/77	22	23	0.140	0.0348	1.965	0.05	0.05
2	8/15/77	22	24	0.165	0.0469	2.650	0.08	0.08
2	8/15/77	22	25	0.177	0.0536	3.028	0.13	0.13
2	8/15/77	22	26	0.183	0.0569	3.217	0.18	0.18
2	8/15/77	22	27	0.180	0.0552	3.122	0.24	0.24
2	8/15/77	22	28	0.177	0.0536	3.028	0.29	0.29
2	8/15/77	22	29	0.171	0.0502	2.839	0.34	0.34
2	8/15/77	22	30	0.162	0.0452	2.556	0.38	0.38
2	8/15/77	22	31	0.155	0.0419	2.367	0.42	0.42
2	8/15/77	22	32	0.152	0.0402	2.272	0.46	0.46
2	8/15/77	22	33	0.149	0.0389	2.196	0.50	0.50
2	8/15/77	22	34	0.146	0.0375	2.119	0.53	0.53
2	8/15/77	22	35	0.140	0.0348	1.965	0.57	0.57
2	8/15/77	22	36	0.134	0.0321	1.812	0.60	0.60
2	8/15/77	22	37	0.128	0.0293	1.658	0.63	0.63
2	8/15/77	22	38	0.119	0.0256	1.444	0.65	0.65
2	8/15/77	22	39	0.110	0.0224	1.264	0.68	0.68
2	8/15/77	22	40	0.098	0.0181	1.024	0.70	0.70
2	8/15/77	22	41	0.085	0.0144	0.812	0.71	0.71
2	8/15/77	22	42	0.073	0.0111	0.629	0.72	0.72
2	8/15/77	22	43	0.064	0.0087	0.491	0.73	0.73
2	8/15/77	22	44	0.055	0.0068	0.384	0.74	0.74
2	8/15/77	22	45	0.049	0.0057	0.324	0.75	0.75
2	8/15/77	22	46	0.046	0.0052	0.294	0.75	0.75
2	8/15/77	22	48	0.043	0.0047	0.263	0.76	0.76
2	8/15/77	22	50	0.040	0.0041	0.233	0.77	0.77
2	8/15/77	22	51	0.037	0.0036	0.203	0.77	0.77
2	8/15/77	22	52	0.034	0.0031	0.173	0.78	0.78
2	8/15/77	22	53	0.030	0.0025	0.142	0.78	0.78
2	8/15/77	22	54	0.027	0.0023	0.128	0.78	0.78
2	8/15/77	22	55	0.024	0.0020	0.114	0.78	0.78
2	8/15/77	22	56	0.021	0.0018	0.100	0.78	0.78
2	8/15/77	22	57	0.018	0.0015	0.085	0.79	0.79
2	8/15/77	22	59	0.015	0.0013	0.071	0.79	0.79
2	8/15/77	23	1	0.012	0.0010	0.057	0.79	0.79
2	8/15/77	23	2	0.009	0.0008	0.043	0.79	0.79
2	8/15/77	23	4	0.006	0.0005	0.028	0.79	0.79
2	8/15/77	23	7	0.003	0.0003	0.014	0.79	0.79
2	8/15/77	23	12	0.003	0.0003	0.014	0.79	0.79
2	8/15/77	23	16	0.0	0.0	0.0	0.80	0.80
2	9/17/77	19	59	0.0	0.0	0.0	0.0	0.80
2	9/17/77	20	0	0.006	0.0005	0.028	0.00	0.80
2	9/17/77	20	1	0.009	0.0008	0.043	0.00	0.80
2	9/17/77	20	2	0.012	0.0010	0.057	0.00	0.80
2	9/17/77	20	5	0.012	0.0010	0.057	0.00	0.80
2	9/17/77	20	8	0.009	0.0008	0.043	0.01	0.80
2	9/17/77	20	11	0.006	0.0005	0.028	0.01	0.80
2	9/17/77	20	13	0.003	0.0003	0.014	0.01	0.80
2	9/17/77	20	17	0.0	0.0	0.0	0.01	0.81
2	9/18/77	6	1	0.0	0.0	0.0	0.0	0.81
2	9/18/77	6	2	0.006	0.0005	0.028	0.00	0.81
2	9/18/77	6	3	0.009	0.0008	0.043	0.00	0.81
2	9/18/77	6	5	0.012	0.0010	0.057	0.00	0.81
2	9/18/77	6	6	0.015	0.0013	0.071	0.00	0.81
2	9/18/77	6	7	0.018	0.0015	0.085	0.00	0.81
2	9/18/77	6	9	0.021	0.0018	0.100	0.01	0.81
2	9/18/77	6	10	0.024	0.0020	0.114	0.01	0.81
2	9/18/77	6	13	0.024	0.0020	0.114	0.02	0.82
2	9/18/77	6	16	0.021	0.0018	0.100	0.02	0.83
2	9/18/77	6	20	0.018	0.0015	0.085	0.03	0.83
2	9/18/77	6	24	0.015	0.0013	0.071	0.03	0.84
2	9/18/77	6	28	0.012	0.0010	0.057	0.04	0.84
2	9/18/77	6	31	0.009	0.0008	0.043	0.04	0.84
2	9/18/77	6	35	0.006	0.0005	0.028	0.04	0.85
2	9/18/77	6	39	0.006	0.0005	0.028	0.04	0.85
2	9/18/77	6	57	0.003	0.0003	0.014	0.05	0.85
2	9/18/77	7	2	0.003	0.0003	0.014	0.05	0.86
2	9/18/77	7	7	0.0	0.0	0.0	0.05	0.86
2	10/23/77	9	40	0.0	0.0	0.0	0.0	0.86
2	10/23/77	9	48	0.006	0.0005	0.028	0.00	0.86
2	10/23/77	10	12	0.0	0.0	0.0	0.01	0.86
2	10/31/77	2	48	0.0	0.0	0.0	0.0	0.86
2	10/31/77	3	48	0.003	0.0003	0.014	0.01	0.87
2	10/31/77	4	20	0.0	0.0	0.0	0.01	0.87

TABLE D1- 8. FOUR MILE CREEK WATERSHED RUNOFF DATA FOR 1977 SITE 3

SITE	DATE	HOUR	MIN	STAGE M	RUNOFF RATE CMS	RUNOFF INTENSITY MMPH	STORM RUNOFF MM	ANNUAL RUNOFF MM
3	8/15/77	22	23	0.0	0.0	0.0	0.0	0.0
3	8/15/77	22	28	0.003	0.0003	0.015	0.00	0.00
3	8/15/77	22	30	0.006	0.0005	0.031	0.00	0.00
3	8/15/77	22	35	0.003	0.0003	0.015	0.00	0.00
3	8/15/77	22	43	0.0	0.0	0.0	0.00	0.00
3	8/31/77	23	17	0.0	0.0	0.0	0.0	0.00
3	8/31/77	23	18	0.006	0.0005	0.031	0.00	0.00
3	8/31/77	23	20	0.009	0.0008	0.046	0.00	0.01
3	8/31/77	23	46	0.009	0.0008	0.046	0.02	0.03
3	8/31/77	23	50	0.006	0.0005	0.031	0.02	0.03
3	8/31/77	23	53	0.003	0.0003	0.015	0.03	0.03
3	8/31/77	23	55	0.0	0.0	0.0	0.03	0.03
3	9/17/77	19	22	0.0	0.0	0.0	0.0	0.03
3	9/17/77	19	23	0.003	0.0003	0.015	0.00	0.03
3	9/17/77	19	24	0.006	0.0005	0.031	0.00	0.03
3	9/17/77	19	25	0.009	0.0008	0.046	0.00	0.03
3	9/17/77	19	27	0.012	0.0010	0.061	0.00	0.03
3	9/17/77	19	31	0.012	0.0010	0.061	0.01	0.04
3	9/17/77	19	35	0.009	0.0008	0.046	0.01	0.04
3	9/17/77	19	44	0.009	0.0008	0.046	0.02	0.05
3	9/17/77	19	45	0.027	0.0023	0.138	0.02	0.05
3	9/17/77	19	46	0.043	0.0047	0.283	0.02	0.05
3	9/17/77	19	47	0.049	0.0057	0.348	0.03	0.06
3	9/17/77	19	48	0.052	0.0063	0.380	0.03	0.06
3	9/17/77	19	49	0.055	0.0068	0.413	0.04	0.07
3	9/17/77	19	53	0.055	0.0068	0.413	0.07	0.10
3	9/17/77	19	55	0.052	0.0063	0.380	0.08	0.11
3	9/17/77	19	56	0.049	0.0057	0.348	0.09	0.12
3	9/17/77	19	57	0.046	0.0052	0.315	0.09	0.12
3	9/17/77	19	58	0.082	0.0136	0.823	0.10	0.13
3	9/17/77	19	59	0.131	0.0307	1.863	0.12	0.15
3	9/17/77	20	0	0.174	0.0519	3.151	0.17	0.20
3	9/17/77	20	1	0.189	0.0609	3.696	0.22	0.25
3	9/17/77	20	2	0.198	0.0668	4.057	0.29	0.32
3	9/17/77	20	3	0.201	0.0688	4.177	0.36	0.39
3	9/17/77	20	4	0.198	0.0668	4.057	0.43	0.46
3	9/17/77	20	5	0.195	0.0648	3.937	0.49	0.52
3	9/17/77	20	6	0.192	0.0629	3.816	0.56	0.59
3	9/17/77	20	7	0.210	0.0748	4.538	0.63	0.66
3	9/17/77	20	8	0.241	0.0976	5.927	0.71	0.74
3	9/17/77	20	9	0.262	0.1161	7.048	0.82	0.85
3	9/17/77	20	10	0.274	0.1269	7.701	0.94	0.97
3	9/17/77	20	11	0.277	0.1299	7.887	1.07	1.10
3	9/17/77	20	12	0.271	0.1242	7.538	1.20	1.23
3	9/17/77	20	13	0.277	0.1299	7.887	1.33	1.36
3	9/17/77	20	14	0.299	0.1513	9.187	1.47	1.50
3	9/17/77	20	15	0.311	0.1642	9.971	1.63	1.66
3	9/17/77	20	16	0.299	0.1513	9.187	1.79	1.82
3	9/17/77	20	17	0.296	0.1483	9.001	1.94	1.97
3	9/17/77	20	18	0.283	0.1360	8.258	2.09	2.12
3	9/17/77	20	19	0.268	0.1215	7.375	2.22	2.25
3	9/17/77	20	20	0.256	0.1107	6.722	2.34	2.37
3	9/17/77	20	21	0.247	0.1026	6.232	2.44	2.47
3	9/17/77	20	22	0.232	0.0907	5.504	2.54	2.57
3	9/17/77	20	23	0.223	0.0837	5.082	2.63	2.66
3	9/17/77	20	24	0.213	0.0767	4.659	2.71	2.74
3	9/17/77	20	25	0.201	0.0688	4.177	2.78	2.81
3	9/17/77	20	26	0.192	0.0629	3.816	2.85	2.88
3	9/17/77	20	27	0.186	0.0589	3.576	2.91	2.94
3	9/17/77	20	28	0.174	0.0519	3.151	2.97	3.00
3	9/17/77	20	29	0.168	0.0486	2.948	3.02	3.05
3	9/17/77	20	30	0.158	0.0436	2.644	3.07	3.10
3	9/17/77	20	31	0.149	0.0389	2.359	3.11	3.14
3	9/17/77	20	32	0.140	0.0348	2.111	3.15	3.18
3	9/17/77	20	33	0.134	0.0321	1.946	3.18	3.21
3	9/17/77	20	34	0.128	0.0293	1.781	3.21	3.24
3	9/17/77	20	35	0.119	0.0256	1.551	3.24	3.27
3	9/17/77	20	36	0.110	0.0224	1.358	3.26	3.29
3	9/17/77	20	37	0.104	0.0202	1.229	3.28	3.31
3	9/17/77	20	38	0.098	0.0181	1.100	3.30	3.33
3	9/17/77	20	39	0.091	0.0160	0.971	3.32	3.35
3	9/17/77	20	40	0.085	0.0144	0.873	3.34	3.37
3	9/17/77	20	41	0.079	0.0127	0.774	3.35	3.38
3	9/17/77	20	42	0.076	0.0119	0.725	3.36	3.39
3	9/17/77	20	43	0.073	0.0111	0.675	3.37	3.40
3	9/17/77	20	44	0.067	0.0095	0.577	3.38	3.41
3	9/17/77	20	45	0.064	0.0087	0.527	3.39	3.42
3	9/17/77	20	46	0.061	0.0079	0.478	3.40	3.43
3	9/17/77	20	47	0.058	0.0073	0.445	3.41	3.44
3	9/17/77	20	48	0.055	0.0068	0.413	3.42	3.45
3	9/17/77	20	49	0.052	0.0063	0.380	3.42	3.45
3	9/17/77	20	50	0.049	0.0057	0.348	3.43	3.46
3	9/17/77	20	51	0.046	0.0052	0.315	3.43	3.46
3	9/17/77	20	52	0.043	0.0047	0.283	3.44	3.47
3	9/17/77	20	53	0.040	0.0041	0.250	3.44	3.47
3	9/17/77	20	54	0.037	0.0036	0.218	3.45	3.48
3	9/17/77	20	55	0.034	0.0031	0.185	3.45	3.48
3	9/17/77	20	56	0.030	0.0025	0.153	3.45	3.48
3	9/17/77	20	57	0.027	0.0023	0.138	3.46	3.49
3	9/17/77	20	59	0.024	0.0020	0.122	3.46	3.49
3	9/17/77	21	0	0.021	0.0018	0.107	3.46	3.49
3	9/17/77	21	1	0.018	0.0015	0.092	3.46	3.49
3	9/17/77	21	3	0.015	0.0013	0.076	3.47	3.50
3	9/17/77	21	5	0.012	0.0010	0.061	3.47	3.50
3	9/17/77	21	7	0.009	0.0008	0.046	3.47	3.50
3	9/17/77	21	9	0.006	0.0005	0.031	3.47	3.50
3	9/17/77	21	11	0.003	0.0003	0.015	3.47	3.50
3	9/17/77	21	14	0.0	0.0	0.0	3.47	3.50
3	9/17/77	22	19	0.0	0.0	0.0	3.47	3.50
3	9/17/77	22	20	0.024	0.0020	0.122	3.48	3.50

TABLE D1- 8. CONTINUED

SITE	DATE	HOUR	MIN	STAGE M	RUNOFF RATE CMS	RUNOFF INTENSITY MMPH	STORM RUNOFF MM	ANNUAL RUNOFF MM
3	9/17/77	22	21	0.037	0.0036	0.218	3.48	3.51
3	9/17/77	22	22	0.070	0.0103	0.626	3.48	3.51
3	9/17/77	22	23	0.125	0.0280	1.698	3.50	3.53
3	9/17/77	22	24	0.198	0.0668	4.057	3.55	3.58
3	9/17/77	22	25	0.247	0.1026	6.232	3.64	3.67
3	9/17/77	22	26	0.271	0.1242	7.538	3.75	3.78
3	9/17/77	22	27	0.287	0.1391	8.444	3.89	3.92
3	9/17/77	22	28	0.299	0.1513	9.187	4.03	4.06
3	9/17/77	22	29	0.320	0.1744	10.589	4.20	4.23
3	9/17/77	22	30	0.341	0.1988	12.068	4.39	4.42
3	9/17/77	22	31	0.347	0.2061	12.515	4.59	4.62
3	9/17/77	22	32	0.344	0.2025	12.291	4.80	4.83
3	9/17/77	22	33	0.335	0.1914	11.621	5.00	5.03
3	9/17/77	22	34	0.326	0.1812	11.002	5.19	5.22
3	9/17/77	22	35	0.314	0.1676	10.177	5.36	5.39
3	9/17/77	22	36	0.299	0.1513	9.187	5.52	5.55
3	9/17/77	22	37	0.296	0.1483	9.001	5.68	5.71
3	9/17/77	22	40	0.293	0.1452	8.815	6.12	6.15
3	9/17/77	22	41	0.290	0.1422	8.630	6.27	6.30
3	9/17/77	22	42	0.283	0.1360	8.258	6.41	6.44
3	9/17/77	22	43	0.274	0.1269	7.701	6.54	6.57
3	9/17/77	22	44	0.265	0.1188	7.211	6.66	6.69
3	9/17/77	22	45	0.256	0.1107	6.722	6.78	6.81
3	9/17/77	22	46	0.247	0.1026	6.232	6.89	6.92
3	9/17/77	22	47	0.241	0.0976	5.927	6.99	7.02
3	9/17/77	22	48	0.229	0.0883	5.363	7.08	7.11
3	9/17/77	22	49	0.219	0.0814	4.941	7.17	7.20
3	9/17/77	22	50	0.213	0.0767	4.659	7.25	7.28
3	9/17/77	22	51	0.207	0.0728	4.418	7.33	7.35
3	9/17/77	22	52	0.198	0.0668	4.057	7.40	7.43
3	9/17/77	22	53	0.192	0.0629	3.816	7.46	7.49
3	9/17/77	22	54	0.183	0.0569	3.455	7.52	7.55
3	9/17/77	22	55	0.177	0.0536	3.252	7.58	7.61
3	9/17/77	22	56	0.171	0.0502	3.050	7.63	7.66
3	9/17/77	22	57	0.165	0.0469	2.847	7.68	7.71
3	9/17/77	22	58	0.162	0.0452	2.745	7.73	7.76
3	9/17/77	22	59	0.155	0.0419	2.542	7.77	7.80
3	9/17/77	23	0	0.149	0.0389	2.359	7.81	7.84
3	9/17/77	23	1	0.143	0.0361	2.194	7.85	7.88
3	9/17/77	23	2	0.140	0.0348	2.111	7.88	7.91
3	9/17/77	23	3	0.134	0.0321	1.946	7.92	7.95
3	9/17/77	23	4	0.131	0.0307	1.863	7.95	7.98
3	9/17/77	23	5	0.125	0.0280	1.698	7.98	8.01
3	9/17/77	23	6	0.122	0.0266	1.616	8.01	8.04
3	9/17/77	23	7	0.116	0.0245	1.487	8.03	8.06
3	9/17/77	23	8	0.113	0.0234	1.423	8.06	8.09
3	9/17/77	23	9	0.107	0.0213	1.294	8.08	8.11
3	9/17/77	23	10	0.104	0.0202	1.229	8.10	8.13
3	9/17/77	23	11	0.101	0.0192	1.165	8.12	8.15
3	9/17/77	23	12	0.098	0.0181	1.100	8.14	8.17
3	9/17/77	23	13	0.094	0.0171	1.036	8.16	8.19
3	9/17/77	23	14	0.091	0.0160	0.971	8.17	8.20
3	9/17/77	23	15	0.088	0.0152	0.922	8.19	8.22
3	9/17/77	23	16	0.085	0.0144	0.873	8.21	8.24
3	9/17/77	23	17	0.082	0.0136	0.823	8.22	8.25
3	9/17/77	23	18	0.079	0.0127	0.774	8.23	8.26
3	9/17/77	23	19	0.076	0.0119	0.725	8.25	8.28
3	9/17/77	23	20	0.073	0.0111	0.675	8.26	8.29
3	9/17/77	23	22	0.070	0.0103	0.626	8.28	8.31
3	9/17/77	23	23	0.067	0.0095	0.577	8.29	8.32
3	9/17/77	23	25	0.064	0.0087	0.527	8.31	8.34
3	9/17/77	23	27	0.061	0.0079	0.478	8.32	8.35
3	9/17/77	23	29	0.058	0.0073	0.445	8.34	8.37
3	9/17/77	23	31	0.055	0.0068	0.413	8.35	8.38
3	9/17/77	23	33	0.052	0.0063	0.380	8.37	8.40
3	9/17/77	23	34	0.049	0.0057	0.348	8.37	8.40
3	9/17/77	23	35	0.046	0.0052	0.315	8.38	8.41
3	9/17/77	23	36	0.043	0.0047	0.283	8.38	8.41
3	9/17/77	23	38	0.040	0.0041	0.250	8.39	8.42
3	9/17/77	23	40	0.037	0.0036	0.218	8.40	8.43
3	9/17/77	23	42	0.034	0.0031	0.185	8.41	8.44
3	9/17/77	23	44	0.030	0.0025	0.153	8.41	8.44
3	9/17/77	23	46	0.027	0.0023	0.138	8.42	8.45
3	9/17/77	23	47	0.024	0.0020	0.122	8.42	8.45
3	9/17/77	23	49	0.021	0.0018	0.107	8.42	8.45
3	9/17/77	23	50	0.018	0.0015	0.092	8.42	8.45
3	9/17/77	23	52	0.015	0.0013	0.076	8.43	8.46
3	9/17/77	23	54	0.012	0.0010	0.061	8.43	8.46
3	9/17/77	23	55	0.009	0.0008	0.046	8.43	8.46
3	9/17/77	23	57	0.006	0.0005	0.031	8.43	8.46
3	9/17/77	23	58	0.003	0.0003	0.015	8.43	8.46
3	9/17/77	24	0	0.0	0.0	0.0	8.43	8.46
3	9/23/77	21	52	0.0	0.0	0.0	0.0	8.46
3	9/23/77	21	53	0.003	0.0003	0.015	0.00	8.46
3	9/23/77	21	55	0.006	0.0005	0.031	0.00	8.46
3	9/23/77	21	57	0.009	0.0008	0.046	0.00	8.46
3	9/23/77	22	2	0.006	0.0005	0.031	0.01	8.47
3	9/23/77	22	11	0.006	0.0005	0.031	0.01	8.47
3	9/23/77	22	15	0.003	0.0003	0.015	0.01	8.47
3	9/23/77	22	16	0.006	0.0005	0.031	0.01	8.47
3	9/23/77	22	19	0.003	0.0003	0.015	0.01	8.47
3	9/23/77	22	23	0.003	0.0003	0.015	0.01	8.48
3	9/23/77	22	24	0.018	0.0015	0.092	0.01	8.48
3	9/23/77	22	25	0.021	0.0018	0.107	0.02	8.48
3	9/23/77	22	26	0.024	0.0020	0.122	0.02	8.48
3	9/23/77	22	27	0.027	0.0023	0.138	0.02	8.48
3	9/23/77	22	31	0.024	0.0020	0.122	0.03	8.49
3	9/23/77	22	33	0.021	0.0018	0.107	0.03	8.50
3	9/23/77	22	35	0.018	0.0015	0.092	0.04	8.50
3	9/23/77	22	37	0.015	0.0013	0.076	0.04	8.50
3	9/23/77	22	39	0.012	0.0010	0.061	0.04	8.50
3	9/23/77	22	41	0.009	0.0008	0.046	0.04	8.51

TABLE D1- 8. CONCLUDED

SITE	DATE	HOUR	MIN	STAGE M	RUNOFF RATE CMS	RUNOFF INTENSITY MMPH	STORM RUNOFF MM	ANNUAL RUNOFF MM
3	9/23/77	22	45	0.006	0.0005	0.031	0.05	8.51
3	9/23/77	22	52	0.003	0.0003	0.015	0.05	8.51
3	9/23/77	23	0	0.0	0.0	0.0	0.05	8.51
3	9/30/77	19	40	0.0	0.0	0.0	0.0	8.51
3	9/30/77	19	44	0.006	0.0005	0.031	0.00	8.51
3	9/30/77	20	4	0.003	0.0003	0.015	0.01	8.52
3	9/30/77	20	16	0.003	0.0003	0.015	0.01	8.52
3	9/30/77	20	20	0.012	0.0010	0.061	0.01	8.53
3	9/30/77	20	28	0.006	0.0005	0.031	0.02	8.53
3	9/30/77	20	44	0.003	0.0003	0.015	0.03	8.54
3	9/30/77	21	4	0.0	0.0	0.0	0.03	8.54
3	10/23/77	9	26	0.0	0.0	0.0	0.0	8.54
3	10/23/77	9	30	0.006	0.0005	0.031	0.00	8.54
3	10/23/77	9	50	0.006	0.0005	0.031	0.01	8.55
3	10/23/77	9	54	0.030	0.0025	0.153	0.02	8.56
3	10/23/77	9	58	0.040	0.0041	0.250	0.03	8.57
3	10/23/77	10	2	0.037	0.0036	0.216	0.05	8.59
3	10/23/77	10	6	0.030	0.0025	0.153	0.06	8.60
3	10/23/77	10	10	0.024	0.0020	0.122	0.07	8.61
3	10/23/77	10	14	0.021	0.0018	0.107	0.08	8.62
3	10/23/77	10	18	0.018	0.0015	0.092	0.08	8.62
3	10/23/77	10	22	0.015	0.0013	0.076	0.09	8.63
3	10/23/77	10	26	0.012	0.0010	0.061	0.09	8.63
3	10/23/77	10	30	0.009	0.0008	0.046	0.10	8.64
3	10/23/77	10	34	0.006	0.0005	0.031	0.10	8.64
3	10/23/77	10	46	0.003	0.0003	0.015	0.10	8.64
3	10/23/77	11	6	0.0	0.0	0.0	0.11	8.65

TABLE D1- 9. FOUR MILE CREEK WATERSHED RUNOFF DATA FOR 1977 SITE 7

SITE	DATE	HOUR	MIN	STAGE M	RUNOFF RATE CMS	RUNOFF INTENSITY MMPH	STORM RUNOFF MM	ANNUAL RUNOFF MM
7	8/15/77	22	26	0.0	0.0	0.0	0.0	0.0
7	8/15/77	22	28	0.131	0.2435	0.309	0.01	0.01
7	8/15/77	22	30	0.152	0.2832	0.359	0.02	0.02
7	8/15/77	22	32	0.146	0.2718	0.345	0.03	0.03
7	8/15/77	22	34	0.137	0.2549	0.323	0.04	0.04
7	8/15/77	22	36	0.125	0.2322	0.294	0.05	0.05
7	8/15/77	22	38	0.116	0.2152	0.273	0.06	0.06
7	8/15/77	22	40	0.101	0.1869	0.237	0.07	0.07
7	8/15/77	22	42	0.085	0.1586	0.201	0.07	0.07
7	8/15/77	22	44	0.070	0.1303	0.165	0.08	0.08
7	8/15/77	22	46	0.055	0.1019	0.129	0.09	0.09
7	8/15/77	22	48	0.085	0.1586	0.201	0.09	0.09
7	8/15/77	22	50	0.116	0.2152	0.273	0.10	0.10
7	8/15/77	22	52	0.223	0.4655	0.590	0.11	0.11
7	8/15/77	22	54	0.283	0.6241	0.791	0.14	0.14
7	8/15/77	22	56	0.287	0.6320	0.801	0.16	0.16
7	8/15/77	22	58	0.308	0.6898	0.874	0.19	0.19
7	8/15/77	23	0	0.323	0.7408	0.939	0.22	0.22
7	8/15/77	23	2	0.335	0.7815	0.991	0.25	0.25
7	8/15/77	23	4	0.329	0.7612	0.965	0.29	0.29
7	8/15/77	23	6	0.326	0.7510	0.952	0.32	0.32
7	8/15/77	23	8	0.323	0.7408	0.939	0.35	0.35
7	8/15/77	23	10	0.314	0.7102	0.900	0.38	0.38
7	8/15/77	23	12	0.305	0.6796	0.861	0.41	0.41
7	8/15/77	23	14	0.293	0.6479	0.821	0.44	0.44
7	8/15/77	23	16	0.283	0.6241	0.791	0.46	0.46
7	8/15/77	23	18	0.271	0.5924	0.751	0.49	0.49
7	8/15/77	23	20	0.262	0.5686	0.721	0.51	0.51
7	8/15/77	23	22	0.253	0.5448	0.691	0.54	0.54
7	8/15/77	23	24	0.244	0.5210	0.660	0.56	0.56
7	8/15/77	23	26	0.232	0.4893	0.620	0.58	0.58
7	8/15/77	23	28	0.223	0.4655	0.590	0.60	0.60
7	8/15/77	23	30	0.213	0.4417	0.560	0.62	0.62
7	8/15/77	23	32	0.204	0.4180	0.530	0.64	0.64
7	8/15/77	23	34	0.195	0.3942	0.500	0.66	0.66
7	8/15/77	23	36	0.189	0.3783	0.480	0.67	0.67
7	8/15/77	23	38	0.183	0.3625	0.459	0.69	0.69
7	8/15/77	23	40	0.177	0.3466	0.439	0.70	0.70
7	8/15/77	23	42	0.171	0.3307	0.419	0.72	0.72
7	8/15/77	23	44	0.162	0.3070	0.389	0.73	0.73
7	8/15/77	23	46	0.155	0.2911	0.369	0.74	0.74
7	8/15/77	23	48	0.149	0.2775	0.352	0.76	0.76
7	8/15/77	23	50	0.140	0.2605	0.330	0.77	0.77
7	8/15/77	23	52	0.137	0.2549	0.323	0.78	0.78
7	8/15/77	23	54	0.131	0.2435	0.309	0.79	0.79
7	8/15/77	23	56	0.128	0.2379	0.302	0.80	0.80
7	8/15/77	23	58	0.125	0.2322	0.294	0.81	0.81
7	8/15/77	24	0	0.122	0.2265	0.287	0.82	0.82
7	8/16/77	0	2	0.119	0.2209	0.280	0.83	0.83
7	8/16/77	0	4	0.116	0.2152	0.273	0.84	0.84
7	8/16/77	0	6	0.113	0.2095	0.266	0.85	0.85
7	8/16/77	0	8	0.110	0.2039	0.258	0.85	0.85
7	8/16/77	0	10	0.107	0.1982	0.251	0.86	0.86
7	8/16/77	1	0	0.0	0.0	0.0	0.97	0.97
7	9/18/77	5	52	0.0	0.0	0.0	0.0	0.97
7	9/18/77	6	0	0.107	0.1982	0.251	0.02	0.98
7	9/18/77	6	2	0.110	0.2039	0.258	0.03	0.99
7	9/18/77	6	4	0.113	0.2095	0.266	0.03	1.00
7	9/18/77	6	8	0.110	0.2039	0.258	0.05	1.02
7	9/18/77	6	12	0.107	0.1982	0.251	0.07	1.04
7	9/18/77	6	42	0.0	0.0	0.0	0.13	1.10
7	9/18/77	7	2	0.101	0.1869	0.237	0.17	1.14
7	9/18/77	7	4	0.110	0.2039	0.258	0.18	1.15
7	9/18/77	7	6	0.116	0.2152	0.273	0.19	1.16
7	9/18/77	7	8	0.125	0.2322	0.294	0.20	1.17
7	9/18/77	7	10	0.134	0.2492	0.316	0.21	1.18
7	9/18/77	7	12	0.146	0.2718	0.345	0.22	1.19
7	9/18/77	7	14	0.152	0.2832	0.359	0.23	1.20
7	9/18/77	7	16	0.162	0.3070	0.389	0.24	1.21
7	9/18/77	7	18	0.168	0.3228	0.409	0.26	1.22
7	9/18/77	7	20	0.174	0.3387	0.429	0.27	1.24
7	9/18/77	7	22	0.180	0.3545	0.449	0.28	1.25
7	9/18/77	7	24	0.186	0.3704	0.470	0.30	1.27
7	9/18/77	7	26	0.189	0.3783	0.480	0.32	1.28
7	9/18/77	7	28	0.195	0.3942	0.500	0.33	1.30
7	9/18/77	7	30	0.198	0.4021	0.510	0.35	1.32
7	9/18/77	7	32	0.201	0.4100	0.520	0.37	1.33
7	9/18/77	7	34	0.204	0.4180	0.530	0.38	1.35
7	9/18/77	7	38	0.207	0.4259	0.540	0.42	1.39
7	9/18/77	7	40	0.210	0.4338	0.550	0.44	1.41
7	9/18/77	7	46	0.213	0.4417	0.560	0.49	1.46
7	9/18/77	7	56	0.210	0.4338	0.550	0.59	1.55
7	9/18/77	8	0	0.207	0.4259	0.540	0.62	1.59
7	9/18/77	8	6	0.204	0.4180	0.530	0.68	1.64
7	9/18/77	8	8	0.201	0.4100	0.520	0.69	1.66
7	9/18/77	8	12	0.198	0.4021	0.510	0.73	1.70
7	9/18/77	8	14	0.195	0.3942	0.500	0.74	1.71
7	9/18/77	8	18	0.192	0.3862	0.490	0.78	1.74
7	9/18/77	8	22	0.189	0.3783	0.480	0.81	1.78
7	9/18/77	8	26	0.186	0.3704	0.470	0.84	1.81
7	9/18/77	8	30	0.183	0.3625	0.459	0.87	1.84
7	9/18/77	8	34	0.180	0.3545	0.449	0.90	1.87
7	9/18/77	8	38	0.177	0.3466	0.439	0.93	1.90
7	9/18/77	8	42	0.174	0.3387	0.429	0.96	1.93
7	9/18/77	8	46	0.171	0.3307	0.419	0.99	1.96
7	9/18/77	8	50	0.168	0.3228	0.409	1.02	1.98
7	9/18/77	8	54	0.165	0.3149	0.399	1.04	2.01
7	9/18/77	8	58	0.162	0.3070	0.389	1.07	2.04
7	9/18/77	9	4	0.158	0.2990	0.379	1.11	2.08
7	9/18/77	9	8	0.155	0.2911	0.369	1.13	2.10
7	9/18/77	9	12	0.152	0.2832	0.359	1.16	2.13
7	9/18/77	9	16	0.149	0.2775	0.352	1.18	2.15

TABLE D1- 9. CONCLUDED

SITE	DATE	HOUR	MIN	STAGE M	RUNOFF RATE CMS	RUNOFF INTENSITY MMPH	STORM RUNOFF MM	ANNUAL RUNOFF MM
7	9/18/77	9	20	0.146	0.2718	0.345	1.20	2.17
7	9/18/77	9	24	0.143	0.2662	0.337	1.23	2.19
7	9/18/77	9	28	0.140	0.2605	0.330	1.25	2.22
7	9/18/77	9	32	0.137	0.2549	0.323	1.27	2.24
7	9/18/77	9	36	0.134	0.2492	0.316	1.29	2.26
7	9/18/77	9	38	0.131	0.2435	0.309	1.30	2.27
7	9/18/77	9	42	0.128	0.2379	0.302	1.32	2.29
7	9/18/77	9	46	0.125	0.2322	0.294	1.34	2.31
7	9/18/77	9	50	0.122	0.2265	0.287	1.36	2.33
7	9/18/77	9	52	0.119	0.2209	0.280	1.37	2.34
7	9/18/77	9	56	0.116	0.2152	0.273	1.39	2.36
7	9/18/77	9	58	0.113	0.2095	0.266	1.40	2.37
7	9/18/77	10	2	0.110	0.2039	0.258	1.42	2.38
7	9/18/77	10	6	0.101	0.1869	0.237	1.44	2.41
7	9/18/77	10	22	0.088	0.1642	0.208	1.49	2.46
7	9/18/77	10	52	0.058	0.1076	0.136	1.58	2.55
7	9/18/77	11	22	0.027	0.0510	0.065	1.63	2.60
7	9/18/77	11	38	0.015	0.0283	0.036	1.64	2.61
7	9/18/77	11	48	0.009	0.0170	0.022	1.65	2.62
7	9/18/77	12	2	0.003	0.0057	0.007	1.65	2.62
7	9/18/77	12	30	0.0	0.0	0.0	1.65	2.62

TABLE DI-10. FOUR MILE CREEK WATERSHED RUNOFF DATA FOR 1977 SITE 8

SITE	DATE	HOUR	MIN	STAGE M	RUNOFF RATE CMS	RUNOFF INTENSITY MMPH	STORM RUNOFF MM	ANNUAL RUNOFF MM
8	4/19/77	17	30	0.0	0.0	0.0	0.0	0.0
8	4/19/77	17	32	0.021	0.0198	0.048	0.00	0.00
8	4/19/77	17	34	0.043	0.0623	0.151	0.00	0.00
8	4/19/77	17	36	0.076	0.3398	0.821	0.02	0.02
8	4/19/77	17	38	0.104	0.6683	1.615	0.06	0.06
8	4/19/77	17	40	0.146	0.9458	2.285	0.13	0.13
8	4/19/77	17	42	0.134	0.8835	2.135	0.20	0.20
8	4/19/77	17	44	0.125	0.8368	2.022	0.27	0.27
8	4/19/77	17	46	0.116	0.7702	1.861	0.33	0.33
8	4/19/77	17	48	0.104	0.6683	1.615	0.39	0.39
8	4/19/77	17	50	0.091	0.5663	1.368	0.44	0.44
8	4/19/77	17	52	0.085	0.4757	1.149	0.48	0.48
8	4/19/77	17	54	0.073	0.2945	0.712	0.51	0.51
8	4/19/77	17	56	0.064	0.1586	0.383	0.53	0.53
8	4/19/77	17	58	0.055	0.0963	0.233	0.54	0.54
8	4/19/77	18	0	0.046	0.0708	0.171	0.55	0.55
8	4/19/77	18	2	0.043	0.0623	0.151	0.55	0.55
8	4/19/77	18	4	0.040	0.0538	0.130	0.56	0.56
8	4/19/77	18	6	0.037	0.0453	0.109	0.56	0.56
8	4/19/77	18	8	0.034	0.0368	0.089	0.57	0.57
8	4/19/77	18	10	0.030	0.0283	0.068	0.57	0.57
8	4/19/77	18	12	0.027	0.0255	0.062	0.57	0.57
8	4/19/77	18	14	0.024	0.0227	0.055	0.57	0.57
8	4/19/77	18	16	0.024	0.0227	0.055	0.58	0.58
8	4/19/77	18	18	0.021	0.0198	0.048	0.58	0.58
8	4/19/77	18	20	0.018	0.0170	0.041	0.58	0.58
8	4/19/77	18	22	0.018	0.0170	0.041	0.58	0.58
8	4/19/77	18	24	0.018	0.0170	0.041	0.58	0.58
8	4/19/77	18	26	0.015	0.0142	0.034	0.58	0.58
8	4/19/77	18	28	0.015	0.0142	0.034	0.58	0.58
8	4/19/77	18	30	0.015	0.0142	0.034	0.58	0.58
8	4/19/77	18	32	0.012	0.0113	0.027	0.59	0.59
8	4/19/77	18	34	0.012	0.0113	0.027	0.59	0.59
8	4/19/77	18	36	0.009	0.0085	0.021	0.59	0.59
8	4/19/77	18	38	0.009	0.0085	0.021	0.59	0.59
8	4/19/77	18	40	0.006	0.0057	0.014	0.59	0.59
8	4/19/77	19	0	0.0	0.0	0.0	0.59	0.59
8	8/ 5/77	11	42	0.0	0.0	0.0	0.0	0.59
8	8/ 5/77	11	43	0.018	0.0170	0.041	0.00	0.59
8	8/ 5/77	11	50	0.021	0.0198	0.048	0.01	0.60
8	8/ 5/77	11	52	0.018	0.0170	0.041	0.01	0.60
8	8/ 5/77	11	55	0.015	0.0142	0.034	0.01	0.60
8	8/ 5/77	11	58	0.012	0.0113	0.027	0.01	0.60
8	8/ 5/77	12	1	0.009	0.0085	0.021	0.01	0.60
8	8/ 5/77	12	4	0.006	0.0057	0.014	0.01	0.60
8	8/ 5/77	12	8	0.003	0.0028	0.007	0.01	0.60
8	8/ 5/77	12	9	0.0	0.0	0.0	0.01	0.60
8	8/ 5/77	12	10	0.009	0.0085	0.021	0.01	0.60
8	8/ 5/77	12	11	0.030	0.0283	0.068	0.01	0.61
8	8/ 5/77	12	12	0.037	0.0453	0.109	0.02	0.61
8	8/ 5/77	12	13	0.043	0.0623	0.151	0.02	0.61
8	8/ 5/77	12	14	0.046	0.0708	0.171	0.02	0.61
8	8/ 5/77	12	15	0.049	0.0793	0.192	0.02	0.61
8	8/ 5/77	12	19	0.052	0.0878	0.212	0.04	0.63
8	8/ 5/77	12	25	0.049	0.0793	0.192	0.06	0.65
8	8/ 5/77	12	28	0.046	0.0708	0.171	0.07	0.66
8	8/ 5/77	12	30	0.043	0.0623	0.151	0.07	0.66
8	8/ 5/77	12	33	0.040	0.0538	0.130	0.08	0.67
8	8/ 5/77	12	37	0.037	0.0453	0.109	0.09	0.68
8	8/ 5/77	12	40	0.034	0.0368	0.089	0.09	0.68
8	8/ 5/77	12	43	0.030	0.0283	0.068	0.10	0.69
8	8/ 5/77	12	46	0.027	0.0255	0.062	0.10	0.69
8	8/ 5/77	12	50	0.024	0.0227	0.055	0.10	0.69
8	8/ 5/77	12	53	0.021	0.0198	0.048	0.11	0.70
8	8/ 5/77	12	57	0.018	0.0170	0.041	0.11	0.70
8	8/ 5/77	13	2	0.015	0.0142	0.034	0.11	0.70
8	8/ 5/77	13	8	0.012	0.0113	0.027	0.11	0.71
8	8/ 5/77	13	12	0.009	0.0085	0.021	0.12	0.71
8	8/ 5/77	13	18	0.006	0.0057	0.014	0.12	0.71
8	8/ 5/77	13	25	0.003	0.0028	0.007	0.12	0.71
8	8/ 5/77	13	32	0.0	0.0	0.0	0.12	0.71
8	8/ 5/77	13	34	0.003	0.0028	0.007	0.12	0.71
8	8/ 5/77	13	35	0.012	0.0113	0.027	0.12	0.71
8	8/ 5/77	13	36	0.018	0.0170	0.041	0.12	0.71
8	8/ 5/77	13	37	0.021	0.0198	0.048	0.12	0.71
8	8/ 5/77	13	38	0.024	0.0227	0.055	0.12	0.71
8	8/ 5/77	13	41	0.027	0.0255	0.062	0.12	0.72
8	8/ 5/77	13	45	0.030	0.0283	0.068	0.13	0.72
8	8/ 5/77	14	0	0.030	0.0283	0.068	0.15	0.74
8	8/ 5/77	14	15	0.027	0.0255	0.062	0.16	0.75
8	8/ 5/77	14	23	0.024	0.0227	0.055	0.17	0.76
8	8/ 5/77	14	32	0.021	0.0198	0.048	0.18	0.77
8	8/ 5/77	14	40	0.018	0.0170	0.041	0.18	0.77
8	8/ 5/77	14	48	0.015	0.0142	0.034	0.19	0.78
8	8/ 5/77	14	57	0.012	0.0113	0.027	0.19	0.78
8	8/ 5/77	15	5	0.009	0.0085	0.021	0.20	0.79
8	8/ 5/77	15	15	0.006	0.0057	0.014	0.20	0.79
8	8/ 5/77	15	25	0.003	0.0028	0.007	0.20	0.79
8	8/ 5/77	15	33	0.0	0.0	0.0	0.20	0.79
8	8/ 8/77	1	24	0.0	0.0	0.0	0.0	0.79
8	8/ 8/77	1	25	0.006	0.0057	0.014	0.00	0.79
8	8/ 8/77	1	35	0.0	0.0	0.0	0.00	0.79
8	8/ 8/77	2	1	0.0	0.0	0.0	0.00	0.79
8	8/ 8/77	2	2	0.012	0.0113	0.027	0.00	0.79
8	8/ 8/77	2	15	0.015	0.0142	0.034	0.01	0.80
8	8/ 8/77	2	30	0.012	0.0113	0.027	0.02	0.81
8	8/ 8/77	2	40	0.009	0.0085	0.021	0.02	0.81
8	8/ 8/77	2	50	0.006	0.0057	0.014	0.02	0.82
8	8/ 8/77	3	0	0.003	0.0028	0.007	0.02	0.82
8	8/ 8/77	3	8	0.0	0.0	0.0	0.02	0.82

TABLE D1-10. CONTINUED

SITE	DATE	HOUR	MIN	STAGE M	RUNOFF RATE CMS	RUNOFF INTENSITY MMPH	STORM RUNOFF MM	ANNUAL RUNOFF MM
8	8/ 8/77	3	9	0.012	0.0113	0.027	0.03	0.82
8	8/ 8/77	3	10	0.018	0.0170	0.041	0.03	0.82
8	8/ 8/77	3	11	0.021	0.0198	0.048	0.03	0.82
8	8/ 8/77	3	13	0.024	0.0227	0.055	0.03	0.82
8	8/ 8/77	3	15	0.027	0.0255	0.062	0.03	0.82
8	8/ 8/77	3	25	0.030	0.0283	0.068	0.04	0.83
8	8/ 8/77	3	45	0.027	0.0255	0.062	0.06	0.86
8	8/ 8/77	3	57	0.024	0.0227	0.055	0.07	0.87
8	8/ 8/77	4	7	0.021	0.0198	0.048	0.08	0.88
8	8/ 8/77	4	17	0.018	0.0170	0.041	0.09	0.88
8	8/ 8/77	4	30	0.015	0.0142	0.034	0.10	0.89
8	8/ 8/77	4	42	0.012	0.0113	0.027	0.10	0.90
8	8/ 8/77	5	0	0.009	0.0085	0.021	0.11	0.90
8	8/ 8/77	5	30	0.006	0.0057	0.014	0.12	0.91
8	8/ 8/77	6	5	0.003	0.0028	0.007	0.13	0.92
8	8/ 8/77	6	35	0.0	0.0	0.0	0.13	0.92
8	8/ 9/77	6	41	0.0	0.0	0.0	0.0	0.92
8	8/ 9/77	6	43	0.006	0.0057	0.014	0.00	0.92
8	8/ 9/77	7	8	0.0	0.0	0.0	0.00	0.92
8	8/ 9/77	7	52	0.0	0.0	0.0	0.00	0.92
8	8/ 9/77	7	55	0.003	0.0028	0.007	0.00	0.92
8	8/ 9/77	7	58	0.006	0.0057	0.014	0.00	0.92
8	8/ 9/77	8	9	0.009	0.0085	0.021	0.01	0.93
8	8/ 9/77	8	11	0.012	0.0113	0.027	0.01	0.93
8	8/ 9/77	8	15	0.015	0.0142	0.034	0.01	0.93
8	8/ 9/77	8	30	0.018	0.0170	0.041	0.02	0.94
8	8/ 9/77	8	33	0.021	0.0198	0.048	0.02	0.94
8	8/ 9/77	8	40	0.024	0.0227	0.055	0.03	0.95
8	8/ 9/77	8	52	0.027	0.0255	0.062	0.04	0.96
8	8/ 9/77	9	0	0.030	0.0283	0.068	0.05	0.97
8	8/ 9/77	9	15	0.027	0.0255	0.062	0.06	0.98
8	8/ 9/77	9	25	0.024	0.0227	0.055	0.07	0.99
8	8/ 9/77	9	38	0.021	0.0198	0.048	0.08	1.00
8	8/ 9/77	9	43	0.024	0.0227	0.055	0.09	1.01
8	8/ 9/77	9	46	0.027	0.0255	0.062	0.09	1.01
8	8/ 9/77	9	48	0.030	0.0283	0.068	0.09	1.01
8	8/ 9/77	9	51	0.034	0.0368	0.089	0.10	1.02
8	8/ 9/77	9	55	0.037	0.0453	0.109	0.10	1.03
8	8/ 9/77	10	0	0.040	0.0538	0.130	0.11	1.04
8	8/ 9/77	10	10	0.043	0.0623	0.151	0.14	1.06
8	8/ 9/77	10	27	0.040	0.0538	0.130	0.18	1.10
8	8/ 9/77	10	40	0.037	0.0453	0.109	0.20	1.12
8	8/ 9/77	10	50	0.034	0.0368	0.089	0.22	1.14
8	8/ 9/77	10	58	0.030	0.0283	0.068	0.23	1.15
8	8/ 9/77	11	5	0.027	0.0255	0.062	0.24	1.16
8	8/ 9/77	11	15	0.024	0.0227	0.055	0.25	1.17
8	8/ 9/77	11	20	0.021	0.0198	0.048	0.25	1.17
8	8/ 9/77	11	27	0.018	0.0170	0.041	0.26	1.18
8	8/ 9/77	11	40	0.015	0.0142	0.034	0.27	1.19
8	8/ 9/77	12	0	0.012	0.0113	0.027	0.28	1.20
8	8/ 9/77	12	22	0.009	0.0085	0.021	0.28	1.21
8	8/ 9/77	12	45	0.006	0.0057	0.014	0.29	1.21
8	8/ 9/77	13	15	0.003	0.0028	0.007	0.30	1.22
8	8/ 9/77	13	35	0.0	0.0	0.0	0.30	1.22
8	8/15/77	22	7	0.0	0.0	0.0	0.0	1.22
8	8/15/77	22	10	0.003	0.0028	0.007	0.00	1.22
8	8/15/77	22	12	0.006	0.0057	0.014	0.00	1.22
8	8/15/77	22	13	0.012	0.0113	0.027	0.00	1.22
8	8/15/77	22	14	0.018	0.0170	0.041	0.00	1.22
8	8/15/77	22	15	0.036	0.0368	0.089	0.00	1.22
8	8/15/77	22	16	0.049	0.0793	0.192	0.00	1.22
8	8/15/77	22	17	0.076	0.3398	0.821	0.01	1.23
8	8/15/77	22	18	0.094	0.5918	1.430	0.03	1.25
8	8/15/77	22	19	0.104	0.6683	1.615	0.06	1.28
8	8/15/77	22	20	0.107	0.6938	1.676	0.08	1.30
8	8/15/77	22	21	0.101	0.6428	1.553	0.11	1.33
8	8/15/77	22	22	0.128	0.8523	2.059	0.14	1.36
8	8/15/77	22	23	0.152	0.9769	2.360	0.18	1.40
8	8/15/77	22	24	0.155	0.9928	2.398	0.22	1.44
8	8/15/77	22	25	0.171	1.0704	2.586	0.26	1.48
8	8/15/77	22	26	0.174	1.0860	2.624	0.30	1.52
8	8/15/77	22	27	0.174	1.0860	2.624	0.35	1.56
8	8/1 /77	22	28	0.174	1.0860	2.624	0.39	1.61
8	8/15/77	22	29	0.174	1.0860	2.624	0.43	1.65
8	8/15/77	22	30	0.168	1.0548	2.549	0.48	1.70
8	8/15/77	22	31	0.162	1.0237	2.473	0.52	1.74
8	8/15/77	22	32	0.152	0.9769	2.360	0.56	1.78
8	8/15/77	22	33	0.168	1.0548	2.549	0.60	1.82
8	8/15/77	22	34	0.189	1.1865	2.867	0.65	1.86
8	8/15/77	22	35	0.195	1.2403	2.997	0.69	1.91
8	8/15/77	22	36	0.198	1.2672	3.062	0.75	1.96
8	8/15/77	22	37	0.210	1.3748	3.322	0.80	2.02
8	8/15/77	22	38	0.219	1.4555	3.517	0.86	2.07
8	8/15/77	22	39	0.213	1.4017	3.387	0.91	2.13
8	8/15/77	22	40	0.210	1.3748	3.322	0.97	2.19
8	8/15/77	22	42	0.210	1.3748	3.322	1.08	2.30
8	8/15/77	22	43	0.204	1.3210	3.192	1.13	2.35
8	8/15/77	22	45	0.201	1.2941	3.127	1.24	2.46
8	8/15/77	22	47	0.198	1.2672	3.062	1.34	2.56
8	8/15/77	22	48	0.195	1.2403	2.997	1.39	2.61
8	8/15/77	22	50	0.192	1.2134	2.932	1.49	2.71
8	8/15/77	22	51	0.189	1.1865	2.867	1.54	2.76
8	8/15/77	22	52	0.183	1.1327	2.737	1.59	2.80
8	8/15/77	22	53	0.180	1.1171	2.699	1.63	2.85
8	8/15/77	22	54	0.177	1.1015	2.661	1.68	2.89
8	8/15/77	22	55	0.174	1.0860	2.624	1.72	2.94
8	8/15/77	22	56	0.168	1.0548	2.549	1.76	2.98
8	8/15/77	22	57	0.165	1.0392	2.511	1.81	3.02
8	8/15/77	22	58	0.158	1.0081	2.436	1.85	3.06
8	8/15/77	22	59	0.155	0.9925	2.398	1.89	3.11

TABLE D1-10. CONTINUED

SITE	DATE	HOUR	MIN	STAGE M	RUNOFF RATE CMS	RUNOFF INTENSITY MMPH	STORM RUNOFF MM	ANNUAL RUNOFF MM
8	8/15/77	23	0	0.152	0.9769	2.360	1.93	3.14
8	8/15/77	23	1	0.146	0.9458	2.285	1.97	3.18
8	8/15/77	23	2	0.143	0.9302	2.247	2.00	3.22
8	8/15/77	23	3	0.140	0.9146	2.210	2.04	3.26
8	8/15/77	23	4	0.134	0.8835	2.135	2.08	3.29
8	8/15/77	23	5	0.131	0.8679	2.097	2.11	3.33
8	8/15/77	23	6	0.128	0.8523	2.059	2.15	3.36
8	8/15/77	23	7	0.125	0.8368	2.022	2.18	3.40
8	8/15/77	23	8	0.122	0.8212	1.984	2.21	3.43
8	8/15/77	23	10	0.119	0.7957	1.923	2.28	3.50
8	8/15/77	23	11	0.116	0.7702	1.861	2.31	3.53
8	8/15/77	23	12	0.113	0.7447	1.799	2.34	3.56
8	8/15/77	23	15	0.110	0.7192	1.738	2.43	3.65
8	8/15/77	23	16	0.107	0.6938	1.676	2.46	3.68
8	8/15/77	23	18	0.104	0.6683	1.615	2.51	3.73
8	8/15/77	23	19	0.101	0.6428	1.553	2.54	3.76
8	8/15/77	23	21	0.098	0.6173	1.491	2.59	3.81
8	8/15/77	23	23	0.094	0.5918	1.430	2.64	3.86
8	8/15/77	23	24	0.091	0.5663	1.368	2.66	3.88
8	8/15/77	23	26	0.088	0.5210	1.259	2.71	3.92
8	8/15/77	23	31	0.085	0.4757	1.149	2.81	4.02
8	8/15/77	23	35	0.082	0.4304	1.040	2.88	4.10
8	8/15/77	23	38	0.079	0.3851	0.930	2.93	4.15
8	8/15/77	23	39	0.076	0.3398	0.821	2.94	4.16
8	8/15/77	23	41	0.073	0.2945	0.712	2.97	4.19
8	8/15/77	23	46	0.070	0.2492	0.602	3.02	4.24
8	8/15/77	23	50	0.067	0.2039	0.493	3.06	4.28
8	8/15/77	23	54	0.064	0.1586	0.383	3.09	4.31
8	8/15/77	24	0	0.061	0.1133	0.274	3.12	4.34
8	8/16/77	0	7	0.058	0.1048	0.253	3.15	4.37
8	8/16/77	0	13	0.055	0.0963	0.233	3.18	4.39
8	8/16/77	0	20	0.052	0.0878	0.212	3.20	4.42
8	8/16/77	0	27	0.049	0.0793	0.192	3.23	4.44
8	8/16/77	0	35	0.046	0.0708	0.171	3.25	4.47
8	8/16/77	0	42	0.043	0.0623	0.151	3.27	4.49
8	8/16/77	0	51	0.040	0.0538	0.130	3.29	4.51
8	8/16/77	0	59	0.037	0.0453	0.109	3.31	4.52
8	8/16/77	1	7	0.034	0.0368	0.089	3.32	4.54
8	8/16/77	1	16	0.030	0.0283	0.068	3.33	4.55
8	8/16/77	1	25	0.027	0.0255	0.062	3.34	4.56
8	8/16/77	1	35	0.024	0.0227	0.055	3.35	4.57
8	8/16/77	1	48	0.021	0.0198	0.048	3.36	4.58
8	8/16/77	2	0	0.018	0.0170	0.041	3.37	4.59
8	8/16/77	2	10	0.015	0.0142	0.034	3.38	4.59
8	8/16/77	2	18	0.012	0.0113	0.027	3.38	4.60
8	8/16/77	2	32	0.009	0.0085	0.021	3.39	4.60
8	8/16/77	2	45	0.006	0.0057	0.014	3.39	4.61
8	8/16/77	3	0	0.003	0.0028	0.007	3.39	4.61
8	8/16/77	3	15	0.0	0.0	0.0	3.39	4.61
8	8/25/77	23	0	0.0	0.0	0.0	0.0	4.61
8	8/25/77	23	1	0.012	0.0113	0.027	0.00	4.61
8	8/25/77	23	2	0.018	0.0170	0.041	0.00	4.61
8	8/25/77	23	10	0.018	0.0170	0.041	0.01	4.62
8	8/25/77	23	13	0.015	0.0142	0.034	0.01	4.62
8	8/25/77	23	15	0.012	0.0113	0.027	0.01	4.62
8	8/25/77	23	21	0.012	0.0113	0.027	0.01	4.62
8	8/25/77	23	22	0.018	0.0170	0.041	0.01	4.62
8	8/25/77	23	23	0.024	0.0227	0.055	0.01	4.62
8	8/25/77	23	24	0.034	0.0368	0.089	0.01	4.63
8	8/25/77	23	25	0.043	0.0623	0.151	0.02	4.63
8	8/25/77	23	26	0.046	0.0708	0.171	0.02	4.63
8	8/25/77	23	28	0.049	0.0793	0.192	0.03	4.64
8	8/25/77	23	30	0.052	0.0878	0.212	0.03	4.64
8	8/25/77	23	46	0.052	0.0878	0.212	0.09	4.70
8	8/25/77	23	47	0.064	0.1586	0.383	0.09	4.71
8	8/25/77	23	48	0.070	0.2492	0.602	0.10	4.71
8	8/25/77	23	49	0.076	0.3398	0.821	0.11	4.73
8	8/25/77	23	51	0.079	0.3851	0.930	0.14	4.78
8	8/25/77	24	0	0.079	0.3851	0.930	0.28	4.89
8	8/26/77	0	2	0.079	0.3851	0.930	0.31	4.92
8	8/26/77	0	7	0.076	0.3398	0.821	0.39	5.00
8	8/26/77	0	13	0.073	0.2945	0.712	0.46	5.07
8	8/26/77	0	17	0.070	0.2492	0.602	0.51	5.12
8	8/26/77	0	25	0.067	0.2039	0.493	0.58	5.19
8	8/26/77	0	30	0.064	0.1586	0.383	0.62	5.23
8	8/26/77	0	35	0.061	0.1133	0.274	0.64	5.26
8	8/26/77	0	40	0.058	0.1048	0.253	0.67	5.28
8	8/26/77	0	55	0.058	0.1048	0.253	0.73	5.34
8	8/26/77	1	0	0.055	0.0963	0.233	0.75	5.36
8	8/26/77	1	10	0.052	0.0878	0.212	0.79	5.40
8	8/26/77	1	17	0.049	0.0793	0.192	0.81	5.42
8	8/26/77	1	25	0.046	0.0708	0.171	0.83	5.45
8	8/26/77	2	6	0.046	0.0708	0.171	0.95	5.56
8	8/26/77	2	10	0.043	0.0623	0.151	0.96	5.57
8	8/26/77	2	20	0.040	0.0538	0.130	0.98	5.60
8	8/26/77	2	27	0.037	0.0453	0.109	1.00	5.61
8	8/26/77	2	33	0.034	0.0368	0.089	1.01	5.62
8	8/26/77	2	40	0.030	0.0283	0.068	1.02	5.63
8	8/26/77	2	46	0.027	0.0255	0.062	1.02	5.64
8	8/26/77	2	55	0.024	0.0227	0.055	1.03	5.64
8	8/26/77	3	8	0.021	0.0198	0.048	1.04	5.66
8	8/26/77	3	16	0.018	0.0170	0.041	1.05	5.66
8	8/26/77	3	20	0.015	0.0142	0.034	1.05	5.66
8	8/26/77	3	27	0.012	0.0113	0.027	1.06	5.67
8	8/26/77	3	36	0.009	0.0085	0.021	1.06	5.67
8	8/26/77	3	46	0.006	0.0057	0.014	1.06	5.67
8	8/26/77	3	56	0.003	0.0028	0.007	1.06	5.68
8	8/26/77	4	12	0.0	0.0	0.0	1.07	5.68
8	8/27/77	22	18	0.0	0.0	0.0	0.0	5.68
8	8/27/77	22	48	0.006	0.0057	0.014	0.00	5.68

TABLE D1-10. CONTINUED

SITE	DATE	HOUR	MIN	STAGE M	RUNOFF RATE CMS	RUNOFF INTENSITY MMPH	STORM RUNOFF MM	ANNUAL RUNOFF MM
8	8/27/77	23	23	0.0	0.0	0.0	0.01	5.68
8	8/27/77	24	0	0.0	0.0	0.0	0.01	5.68
8	8/28/77	0	46	0.0	0.0	0.0	0.01	5.68
8	8/28/77	0	48	0.003	0.0028	0.007	0.01	5.68
8	8/28/77	1	9	0.003	0.0028	0.007	0.01	5.69
8	8/28/77	1	11	0.006	0.0057	0.014	0.01	5.69
8	8/28/77	1	13	0.009	0.0085	0.021	0.01	5.69
8	8/28/77	1	18	0.012	0.0113	0.027	0.01	5.69
8	8/28/77	1	28	0.015	0.0142	0.034	0.02	5.69
8	8/28/77	1	58	0.015	0.0142	0.034	0.04	5.71
8	8/28/77	2	0	0.018	0.0170	0.041	0.04	5.71
8	8/28/77	2	1	0.021	0.0198	0.048	0.04	5.71
8	8/28/77	2	2	0.024	0.0227	0.055	0.04	5.71
8	8/28/77	2	4	0.027	0.0255	0.062	0.04	5.72
8	8/28/77	2	6	0.030	0.0283	0.068	0.04	5.72
8	8/28/77	2	8	0.034	0.0368	0.089	0.04	5.72
8	8/28/77	2	13	0.037	0.0453	0.109	0.05	5.73
8	8/28/77	2	38	0.037	0.0453	0.109	0.10	5.78
8	8/28/77	2	51	0.034	0.0368	0.089	0.12	5.80
8	8/28/77	3	3	0.030	0.0283	0.068	0.14	5.81
8	8/28/77	3	10	0.027	0.0255	0.062	0.14	5.82
8	8/28/77	3	17	0.024	0.0227	0.055	0.15	5.83
8	8/28/77	3	25	0.021	0.0198	0.048	0.16	5.83
8	8/28/77	3	33	0.018	0.0170	0.041	0.16	5.84
8	8/28/77	3	40	0.015	0.0142	0.034	0.17	5.84
8	8/28/77	3	46	0.012	0.0113	0.027	0.17	5.85
8	8/28/77	5	3	0.009	0.0085	0.021	0.20	5.88
8	8/28/77	5	18	0.006	0.0057	0.014	0.21	5.88
8	8/28/77	5	33	0.003	0.0028	0.007	0.21	5.88
8	8/28/77	5	43	0.0	0.0	0.0	0.21	5.89
8	8/31/77	23	1	0.0	0.0	0.0	0.0	5.89
8	8/31/77	23	5	0.006	0.0057	0.014	0.00	5.89
8	8/31/77	23	28	0.0	0.0	0.0	0.00	5.89
8	8/31/77	23	50	0.0	0.0	0.0	0.00	5.89
8	8/31/77	23	51	0.015	0.0142	0.034	0.00	5.89
8	8/31/77	23	52	0.018	0.0170	0.041	0.00	5.89
8	8/31/77	23	53	0.021	0.0198	0.048	0.00	5.89
8	8/31/77	23	54	0.027	0.0255	0.062	0.01	5.89
8	8/31/77	23	56	0.030	0.0283	0.068	0.01	5.89
8	8/31/77	23	58	0.034	0.0368	0.089	0.01	5.90
8	8/31/77	24	0	0.034	0.0368	0.089	0.01	5.90
8	9/ 1/77	0	5	0.037	0.0453	0.109	0.02	5.91
8	9/ 1/77	0	15	0.037	0.0453	0.109	0.04	5.93
8	9/ 1/77	0	25	0.034	0.0368	0.089	0.06	5.94
8	9/ 1/77	0	34	0.030	0.0283	0.068	0.07	5.95
8	9/ 1/77	0	40	0.027	0.0255	0.062	0.07	5.96
8	9/ 1/77	0	47	0.024	0.0227	0.055	0.08	5.97
8	9/ 1/77	0	55	0.021	0.0198	0.048	0.09	5.97
8	9/ 1/77	1	5	0.018	0.0170	0.041	0.10	5.98
8	9/ 1/77	1	17	0.015	0.0142	0.034	0.10	5.99
8	9/ 1/77	1	27	0.012	0.0113	0.027	0.11	5.99
8	9/ 1/77	1	35	0.009	0.0085	0.021	0.11	6.00
8	9/ 1/77	1	45	0.006	0.0057	0.014	0.11	6.00
8	9/ 1/77	1	58	0.003	0.0028	0.007	0.12	6.00
8	9/ 1/77	2	9	0.0	0.0	0.0	0.12	6.00
8	9/17/77	19	56	0.0	0.0	0.0	0.0	6.00
8	9/17/77	19	57	0.006	0.0057	0.014	0.00	6.00
8	9/17/77	19	58	0.012	0.0113	0.027	0.00	6.00
8	9/17/77	19	59	0.021	0.0198	0.048	0.00	6.00
8	9/17/77	20	0	0.024	0.0227	0.055	0.00	6.00
8	9/17/77	20	1	0.030	0.0283	0.068	0.00	6.01
8	9/17/77	20	2	0.034	0.0368	0.089	0.00	6.01
8	9/17/77	20	3	0.040	0.0538	0.130	0.01	6.01
8	9/17/77	20	4	0.043	0.0623	0.151	0.01	6.01
8	9/17/77	20	7	0.040	0.0538	0.130	0.02	6.02
8	9/17/77	20	10	0.037	0.0453	0.109	0.02	6.02
8	9/17/77	20	11	0.034	0.0368	0.089	0.02	6.03
8	9/17/77	20	12	0.030	0.0283	0.068	0.02	6.03
8	9/17/77	20	16	0.027	0.0255	0.062	0.03	6.03
8	9/17/77	20	20	0.030	0.0283	0.068	0.03	6.04
8	9/17/77	20	21	0.034	0.0368	0.089	0.03	6.04
8	9/17/77	20	23	0.037	0.0453	0.109	0.04	6.04
8	9/17/77	20	29	0.037	0.0453	0.109	0.05	6.05
8	9/17/77	20	30	0.073	0.2945	0.712	0.06	6.06
8	9/17/77	20	31	0.098	0.6173	1.491	0.07	6.08
8	9/17/77	20	32	0.104	0.6683	1.615	0.10	6.10
8	9/17/77	20	36	0.101	0.6428	1.553	0.21	6.21
8	9/17/77	20	39	0.098	0.6173	1.491	0.28	6.28
8	9/17/77	20	42	0.094	0.5918	1.430	0.35	6.36
8	9/17/77	20	45	0.091	0.5663	1.368	0.42	6.43
8	9/17/77	20	48	0.088	0.5210	1.259	0.49	6.49
8	9/17/77	20	51	0.085	0.4757	1.149	0.55	6.55
8	9/17/77	20	53	0.082	0.4304	1.040	0.59	6.59
8	9/17/77	20	56	0.079	0.3851	0.930	0.64	6.64
8	9/17/77	20	59	0.076	0.3398	0.821	0.68	6.68
8	9/17/77	21	1	0.073	0.2945	0.712	0.71	6.71
8	9/17/77	21	5	0.070	0.2492	0.602	0.75	6.75
8	9/17/77	21	9	0.067	0.2039	0.493	0.79	6.79
8	9/17/77	21	12	0.064	0.1586	0.383	0.81	6.81
8	9/17/77	21	17	0.061	0.1133	0.274	0.83	6.84
8	9/17/77	21	21	0.058	0.1048	0.253	0.85	6.86
8	9/17/77	21	27	0.055	0.0963	0.233	0.88	6.88
8	9/17/77	21	34	0.052	0.0878	0.212	0.90	6.91
8	9/17/77	21	39	0.049	0.0793	0.192	0.92	6.92
8	9/17/77	21	47	0.046	0.0708	0.171	0.94	6.95
8	9/17/77	21	56	0.043	0.0623	0.151	0.97	6.97
8	9/17/77	22	9	0.040	0.0538	0.130	1.00	7.00
8	9/17/77	22	19	0.037	0.0453	0.109	1.02	7.02
8	9/17/77	22	31	0.034	0.0368	0.089	1.04	7.04
8	9/17/77	22	39	0.030	0.0283	0.068	1.05	7.05

TABLE D1-10. CONTINUED

SITE	DATE	HOUR	MIN	STAGE M	RUNOFF RATE CMS	RUNOFF INTENSITY MMPH	STORM RUNOFF MM	ANNUAL RUNOFF MM
8	9/17/77	22	49	0.027	0.0255	0.062	1.06	7.06
8	9/17/77	23	1	0.024	0.0227	0.055	1.07	7.07
8	9/17/77	23	14	0.021	0.0198	0.048	1.08	7.08
8	9/17/77	23	24	0.018	0.0170	0.041	1.09	7.09
8	9/17/77	23	44	0.015	0.0142	0.034	1.10	7.10
8	9/17/77	23	55	0.012	0.0113	0.027	1.11	7.11
8	9/17/77	24	0	0.012	0.0113	0.027	1.11	7.11
8	9/18/77	0	14	0.009	0.0085	0.021	1.12	7.12
8	9/18/77	0	29	0.006	0.0057	0.014	1.12	7.12
8	9/18/77	0	39	0.009	0.0085	0.021	1.12	7.13
8	9/18/77	0	46	0.012	0.0113	0.027	1.13	7.13
8	9/18/77	0	51	0.015	0.0142	0.034	1.13	7.13
8	9/18/77	1	19	0.015	0.0142	0.034	1.14	7.15
8	9/18/77	1	37	0.012	0.0113	0.027	1.15	7.16
8	9/18/77	2	0	0.009	0.0085	0.021	1.16	7.17
8	9/18/77	2	19	0.006	0.0057	0.014	1.17	7.17
8	9/18/77	2	49	0.003	0.0028	0.007	1.17	7.18
8	9/18/77	2	55	0.0	0.0	0.0	1.17	7.18
8	9/18/77	5	29	0.0	0.0	0.0	1.17	7.18
8	9/18/77	5	34	0.003	0.0028	0.007	1.17	7.18
8	9/18/77	5	44	0.006	0.0057	0.014	1.18	7.18
8	9/18/77	5	59	0.009	0.0085	0.021	1.18	7.18
8	9/18/77	6	4	0.012	0.0113	0.027	1.18	7.18
8	9/18/77	6	14	0.015	0.0142	0.034	1.19	7.19
8	9/18/77	6	34	0.015	0.0142	0.034	1.20	7.20
8	9/18/77	6	46	0.018	0.0170	0.041	1.21	7.21
8	9/18/77	6	47	0.021	0.0198	0.048	1.21	7.21
8	9/18/77	6	48	0.037	0.0453	0.109	1.21	7.21
8	9/18/77	6	49	0.058	0.1048	0.253	1.21	7.21
8	9/18/77	6	50	0.064	0.1586	0.383	1.22	7.22
8	9/18/77	6	52	0.067	0.2039	0.493	1.23	7.23
8	9/18/77	6	54	0.070	0.2492	0.602	1.25	7.25
8	9/18/77	6	55	0.073	0.2945	0.712	1.26	7.26
8	9/18/77	7	2	0.070	0.2492	0.602	1.34	7.34
8	9/18/77	7	11	0.067	0.2039	0.493	1.42	7.42
8	9/18/77	7	19	0.064	0.1586	0.383	1.48	7.48
8	9/18/77	7	26	0.061	0.1133	0.274	1.52	7.52
8	9/18/77	7	34	0.058	0.1048	0.253	1.55	7.55
8	9/18/77	7	42	0.055	0.0963	0.233	1.58	7.59
8	9/18/77	7	50	0.052	0.0878	0.212	1.61	7.61
8	9/18/77	7	56	0.049	0.0793	0.192	1.63	7.64
8	9/18/77	8	4	0.046	0.0708	0.171	1.66	7.66
8	9/18/77	8	14	0.043	0.0623	0.151	1.68	7.69
8	9/18/77	8	49	0.043	0.0623	0.151	1.77	7.77
8	9/18/77	8	59	0.040	0.0538	0.130	1.79	7.80
8	9/18/77	9	19	0.037	0.0453	0.109	1.83	7.84
8	9/18/77	9	26	0.034	0.0368	0.089	1.85	7.85
8	9/18/77	9	35	0.030	0.0283	0.068	1.86	7.86
8	9/18/77	9	44	0.027	0.0255	0.062	1.87	7.87
8	9/18/77	9	56	0.024	0.0227	0.055	1.88	7.88
8	9/18/77	10	9	0.021	0.0198	0.048	1.89	7.89
8	9/18/77	10	24	0.018	0.0170	0.041	1.90	7.90
8	9/18/77	10	39	0.015	0.0142	0.034	1.91	7.91
8	9/18/77	10	51	0.012	0.0113	0.027	1.92	7.92
8	9/18/77	11	14	0.009	0.0085	0.021	1.93	7.93
8	9/18/77	11	34	0.006	0.0057	0.014	1.93	7.93
8	9/18/77	11	49	0.003	0.0028	0.007	1.93	7.94
8	9/18/77	12	0	0.0	0.0	0.0	1.94	7.94
8	9/30/77	4	54	0.0	0.0	0.0	0.0	7.94
8	9/30/77	5	4	0.006	0.0057	0.014	0.00	7.94
8	9/30/77	5	37	0.0	0.0	0.0	0.00	7.94
8	9/30/77	17	5	0.0	0.0	0.0	0.00	7.94
8	9/30/77	17	9	0.012	0.0113	0.027	0.01	7.94
8	9/30/77	17	50	0.0	0.0	0.0	0.02	7.95
8	10/ 7/77	14	23	0.0	0.0	0.0	0.0	7.95
8	10/ 7/77	14	31	0.003	0.0028	0.007	0.00	7.95
8	10/ 7/77	14	40	0.006	0.0057	0.014	0.00	7.96
8	10/ 7/77	14	50	0.009	0.0085	0.021	0.00	7.96
8	10/ 7/77	15	2	0.012	0.0113	0.027	0.01	7.96
8	10/ 7/77	15	13	0.015	0.0142	0.034	0.02	7.97
8	10/ 7/77	15	44	0.018	0.0170	0.041	0.03	7.99
8	10/ 7/77	16	0	0.021	0.0198	0.048	0.05	8.00
8	10/ 7/77	16	15	0.024	0.0227	0.055	0.06	8.01
8	10/ 7/77	16	25	0.027	0.0255	0.062	0.07	8.02
8	10/ 7/77	16	40	0.030	0.0283	0.068	0.09	8.04
8	10/ 7/77	16	46	0.030	0.0283	0.068	0.09	8.05
8	10/ 7/77	17	27	0.027	0.0255	0.062	0.14	8.09
8	10/ 7/77	17	44	0.024	0.0227	0.055	0.15	8.11
8	10/ 7/77	18	16	0.024	0.0227	0.055	0.18	8.14
8	10/ 7/77	18	23	0.027	0.0255	0.062	0.19	8.14
8	10/ 7/77	18	30	0.030	0.0283	0.068	0.20	8.15
8	10/ 7/77	18	36	0.034	0.0368	0.089	0.20	8.16
8	10/ 7/77	18	44	0.037	0.0453	0.109	0.22	8.17
8	10/ 7/77	18	48	0.037	0.0453	0.109	0.23	8.18
8	10/ 7/77	19	2	0.034	0.0368	0.089	0.25	8.20
8	10/ 7/77	19	12	0.030	0.0283	0.068	0.26	8.21
8	10/ 7/77	19	32	0.027	0.0255	0.062	0.28	8.24
8	10/ 7/77	19	43	0.024	0.0227	0.055	0.29	8.25
8	10/ 7/77	20	11	0.021	0.0198	0.048	0.32	8.27
8	10/ 7/77	20	19	0.018	0.0170	0.041	0.32	8.28
8	10/ 7/77	20	45	0.015	0.0142	0.034	0.34	8.29
8	10/ 7/77	21	2	0.012	0.0113	0.027	0.35	8.30
8	10/ 7/77	21	29	0.009	0.0085	0.021	0.36	8.31
8	10/ 7/77	21	42	0.006	0.0057	0.014	0.36	8.32
8	10/ 7/77	22	4	0.003	0.0028	0.007	0.37	8.32
8	10/ 7/77	22	23	0.0	0.0	0.0	0.37	8.32
8	10/23/77	9	7	0.0	0.0	0.0	0.0	8.32
8	10/23/77	9	15	0.006	0.0057	0.014	0.00	8.32

TABLE D1-10. CONCLUDED

SITE	DATE	HOUR	MIN	STAGE M	RUNOFF RATE CMS	RUNOFF INTENSITY MMPH	STORM RUNOFF MM	ANNUAL RUNOFF MM
8	10/23/77	9	25	0.012	0.0113	0.027	0.00	8.33
8	10/23/77	9	32	0.018	0.0170	0.041	0.01	8.33
8	10/23/77	10	5	0.024	0.0227	0.055	0.03	8.36
8	10/23/77	10	25	0.027	0.0255	0.062	0.05	8.37
8	10/23/77	10	55	0.024	0.0227	0.055	0.08	8.40
8	10/23/77	11	55	0.018	0.0170	0.041	0.13	8.45
8	10/23/77	12	5	0.018	0.0170	0.041	0.14	8.46
8	10/23/77	12	25	0.027	0.0255	0.062	0.15	8.48
8	10/23/77	12	50	0.027	0.0255	0.062	0.18	8.50
8	10/23/77	14	35	0.021	0.0198	0.048	0.28	8.60
8	10/23/77	15	40	0.024	0.0227	0.055	0.33	8.65
8	10/23/77	16	55	0.024	0.0227	0.055	0.40	8.72
8	10/23/77	18	50	0.027	0.0255	0.062	0.51	8.83
8	10/23/77	20	35	0.021	0.0198	0.048	0.61	8.93
8	10/23/77	21	40	0.015	0.0142	0.034	0.65	8.97
8	10/23/77	22	40	0.012	0.0113	0.027	0.68	9.00
8	10/23/77	23	40	0.009	0.0085	0.021	0.71	9.03
8	10/23/77	24	0	0.006	0.0057	0.014	0.71	9.03
8	10/24/77	0	25	0.003	0.0028	0.007	0.72	9.04
8	10/24/77	0	45	0.0	0.0	0.0	0.72	9.04
8	10/24/77	6	0	0.0	0.0	0.0	0.72	9.04
8	10/24/77	6	2	0.003	0.0028	0.007	0.72	9.04
8	10/24/77	6	5	0.006	0.0057	0.014	0.72	9.04
8	10/24/77	6	25	0.009	0.0085	0.021	0.72	9.05
8	10/24/77	6	45	0.009	0.0085	0.021	0.73	9.05
8	10/24/77	7	0	0.012	0.0113	0.027	0.74	9.06
8	10/24/77	7	25	0.015	0.0142	0.034	0.75	9.07
8	10/24/77	9	55	0.012	0.0113	0.027	0.83	9.15
8	10/24/77	12	0	0.012	0.0113	0.027	0.88	9.20
8	10/24/77	12	40	0.009	0.0085	0.021	0.90	9.22
8	10/24/77	13	10	0.006	0.0057	0.014	0.91	9.23
8	10/24/77	13	30	0.003	0.0028	0.007	0.91	9.23
8	10/24/77	13	47	0.0	0.0	0.0	0.91	9.23

TABLE D1-11. FOUR MILE CREEK WATERSHED RUNOFF DATA FOR 1978 SITE 1

SITE	DATE	HOUR	MIN	STAGE M	RUNOFF RATE CMS	RUNOFF INTENSITY MMPH	STORM RUNOFF MM	ANNUAL RUNOFF MM
1	3/19/78	10	0	0.0	0.0	0.0	0.0	0.0
1	3/19/78	12	15	0.018	0.0015	0.108	0.12	0.12
1	3/19/78	17	40	0.070	0.0103	0.735	2.40	2.40
1	3/19/78	17	53	0.067	0.0095	0.677	2.56	2.56
1	3/19/78	18	6	0.064	0.0087	0.619	2.70	2.70
1	3/19/78	18	35	0.061	0.0079	0.561	2.98	2.98
1	3/19/78	19	3	0.058	0.0073	0.523	3.24	3.24
1	3/19/78	19	46	0.055	0.0068	0.485	3.60	3.60
1	3/19/78	20	51	0.052	0.0063	0.447	4.10	4.10
1	3/19/78	22	24	0.049	0.0057	0.409	4.76	4.76
1	3/19/78	23	56	0.046	0.0052	0.370	5.36	5.36
1	3/20/78	0	54	0.043	0.0047	0.332	5.70	5.70
1	3/20/78	5	30	0.040	0.0041	0.294	7.14	7.14
1	3/20/78	6	50	0.037	0.0036	0.256	7.51	7.51
1	3/20/78	7	43	0.034	0.0031	0.218	7.72	7.72
1	3/20/78	8	36	0.030	0.0025	0.180	7.89	7.89
1	3/20/78	8	48	0.027	0.0023	0.162	7.93	7.93
1	3/20/78	9	23	0.024	0.0020	0.144	8.02	8.02
1	3/20/78	9	50	0.021	0.0018	0.126	8.08	8.08
1	3/20/78	10	24	0.018	0.0015	0.108	8.14	8.14
1	3/20/78	10	41	0.015	0.0013	0.090	8.17	8.17
1	3/20/78	11	7	0.012	0.0010	0.072	8.21	8.21
1	3/20/78	11	19	0.009	0.0008	0.054	8.22	8.22
1	3/20/78	11	28	0.009	0.0008	0.054	8.23	8.23
1	3/20/78	11	51	0.012	0.0010	0.072	8.25	8.25
1	3/20/78	12	20	0.015	0.0013	0.090	8.29	8.29
1	3/20/78	12	26	0.018	0.0015	0.108	8.30	8.30
1	3/20/78	12	31	0.021	0.0018	0.126	8.31	8.31
1	3/20/78	12	34	0.024	0.0020	0.144	8.32	8.32
1	3/20/78	12	37	0.027	0.0023	0.162	8.32	8.32
1	3/20/78	12	43	0.030	0.0025	0.180	8.34	8.34
1	3/20/78	12	47	0.034	0.0031	0.218	8.35	8.35
1	3/20/78	12	48	0.037	0.0036	0.256	8.36	8.36
1	3/20/78	12	52	0.040	0.0041	0.294	8.38	8.38
1	3/20/78	12	54	0.043	0.0047	0.332	8.39	8.39
1	3/20/78	12	57	0.046	0.0052	0.370	8.40	8.40
1	3/20/78	13	0	0.049	0.0057	0.409	8.42	8.42
1	3/20/78	13	4	0.052	0.0063	0.447	8.45	8.45
1	3/20/78	13	7	0.055	0.0068	0.485	8.48	8.48
1	3/20/78	13	11	0.058	0.0073	0.523	8.51	8.51
1	3/20/78	13	14	0.061	0.0079	0.561	8.54	8.54
1	3/20/78	13	17	0.064	0.0087	0.619	8.57	8.57
1	3/20/78	13	20	0.067	0.0095	0.677	8.60	8.60
1	3/20/78	13	25	0.070	0.0103	0.735	8.66	8.66
1	3/20/78	13	30	0.073	0.0111	0.793	8.72	8.72
1	3/20/78	13	39	0.076	0.0119	0.851	8.84	8.84
1	3/20/78	13	49	0.079	0.0127	0.909	8.99	8.99
1	3/20/78	13	51	0.082	0.0136	0.967	9.02	9.02
1	3/20/78	13	52	0.085	0.0144	1.025	9.04	9.04
1	3/20/78	13	54	0.082	0.0136	0.967	9.07	9.07
1	3/20/78	14	0	0.079	0.0127	0.909	9.17	9.17
1	3/20/78	14	43	0.076	0.0119	0.851	9.80	9.80
1	3/20/78	15	30	0.073	0.0111	0.793	10.44	10.44
1	3/20/78	16	30	0.076	0.0119	0.851	11.26	11.26
1	3/20/78	16	40	0.079	0.0127	0.909	11.41	11.41
1	3/20/78	16	52	0.076	0.0119	0.851	11.58	11.58
1	3/20/78	17	21	0.073	0.0111	0.793	11.98	11.98
1	3/20/78	18	3	0.070	0.0103	0.735	12.52	12.52
1	3/20/78	18	38	0.067	0.0095	0.677	12.89	12.89
1	3/20/78	18	55	0.070	0.0103	0.735	13.13	13.13
1	3/20/78	19	30	0.070	0.0103	0.735	13.56	13.56
1	3/20/78	20	2	0.067	0.0095	0.677	13.93	13.93
1	3/20/78	21	7	0.070	0.0103	0.735	14.70	14.70
1	3/20/78	21	48	0.067	0.0095	0.677	15.18	15.18
1	3/20/78	22	32	0.064	0.0087	0.619	15.66	15.66
1	3/20/78	22	59	0.061	0.0079	0.561	15.92	15.92
1	3/20/78	23	45	0.058	0.0073	0.523	16.34	16.34
1	3/21/78	0	14	0.055	0.0068	0.485	16.58	16.58
1	3/21/78	1	1	0.052	0.0063	0.447	16.95	16.95
1	3/21/78	1	30	0.049	0.0057	0.409	17.18	17.18
1	3/21/78	1	42	0.049	0.0057	0.409	17.23	17.23
1	3/21/78	1	56	0.046	0.0052	0.370	17.33	17.33
1	3/21/78	2	10	0.043	0.0047	0.332	17.41	17.41
1	3/21/78	2	45	0.043	0.0047	0.332	17.60	17.60
1	3/21/78	3	48	0.040	0.0041	0.294	17.93	17.93
1	3/21/78	4	35	0.037	0.0036	0.256	18.15	18.15
1	3/21/78	4	56	0.040	0.0041	0.294	18.24	18.24
1	3/21/78	5	7	0.043	0.0047	0.332	18.30	18.30
1	3/21/78	5	14	0.046	0.0052	0.370	18.34	18.34
1	3/21/78	5	20	0.049	0.0057	0.409	18.38	18.38
1	3/21/78	5	28	0.052	0.0063	0.447	18.44	18.44
1	3/21/78	5	36	0.055	0.0068	0.485	18.50	18.50
1	3/21/78	5	44	0.058	0.0073	0.523	18.56	18.56
1	3/21/78	5	54	0.061	0.0079	0.561	18.66	18.66
1	3/21/78	6	0	0.061	0.0079	0.561	18.71	18.71
1	3/21/78	6	13	0.064	0.0087	0.619	18.84	18.84
1	3/21/78	6	26	0.067	0.0095	0.677	18.98	18.98
1	3/21/78	6	55	0.070	0.0103	0.735	19.32	19.32
1	3/21/78	7	15	0.073	0.0111	0.793	19.58	19.58
1	3/21/78	7	28	0.070	0.0103	0.735	19.74	19.74
1	3/21/78	7	29	0.043	0.0047	0.332	19.75	19.75
1	3/21/78	7	30	0.040	0.0041	0.294	19.76	19.76
1	3/21/78	7	32	0.037	0.0036	0.256	19.76	19.76
1	3/21/78	7	39	0.037	0.0036	0.256	19.79	19.79
1	3/21/78	7	42	0.040	0.0041	0.294	19.81	19.81
1	3/21/78	7	46	0.043	0.0047	0.332	19.83	19.83
1	3/21/78	8	5	0.046	0.0052	0.370	19.94	19.94
1	3/21/78	8	10	0.043	0.0047	0.332	19.97	19.97
1	3/21/78	8	17	0.040	0.0041	0.294	20.01	20.01
1	3/21/78	8	30	0.037	0.0036	0.256	20.07	20.07
1	3/21/78	8	36	0.034	0.0031	0.218	20.09	20.09
1	3/21/78	8	41	0.030	0.0025	0.180	20.11	20.11
1	3/21/78	8	43	0.027	0.0023	0.162	20.11	20.11
1	3/21/78	9	30	0.027	0.0023	0.162	20.24	20.24

TABLE D1-11. CONTINUED

SITE	DATE	HOUR	MIN	STAGE M	RUNOFF RATE CMS	RUNOFF INTENSITY MMPH	STORM RUNOFF MM	ANNUAL RUNOFF MM
1	3/21/78	9	40	0.030	0.0025	0.180	20.27	20.27
1	3/21/78	9	58	0.030	0.0025	0.180	20.32	20.32
1	3/21/78	10	6	0.034	0.0031	0.218	20.35	20.35
1	3/21/78	10	19	0.037	0.0036	0.256	20.40	20.40
1	3/21/78	10	28	0.040	0.0041	0.294	20.44	20.44
1	3/21/78	10	35	0.043	0.0047	0.332	20.48	20.48
1	3/21/78	10	41	0.046	0.0052	0.370	20.51	20.51
1	3/21/78	10	47	0.049	0.0057	0.409	20.55	20.55
1	3/21/78	10	54	0.052	0.0063	0.447	20.60	20.60
1	3/21/78	10	58	0.055	0.0068	0.485	20.63	20.63
1	3/21/78	11	4	0.058	0.0073	0.523	20.68	20.68
1	3/21/78	11	8	0.061	0.0079	0.561	20.72	20.72
1	3/21/78	11	13	0.064	0.0087	0.619	20.77	20.77
1	3/21/78	11	18	0.067	0.0095	0.677	20.82	20.82
1	3/21/78	11	24	0.070	0.0103	0.735	20.89	20.89
1	3/21/78	11	29	0.073	0.0111	0.793	20.95	20.95
1	3/21/78	11	35	0.076	0.0119	0.851	21.04	21.04
1	3/21/78	11	42	0.079	0.0127	0.909	21.14	21.14
1	3/21/78	11	45	0.082	0.0136	0.967	21.19	21.19
1	3/21/78	11	50	0.082	0.0136	0.967	21.27	21.27
1	3/21/78	12	0	0.085	0.0144	1.025	21.43	21.43
1	3/21/78	12	26	0.088	0.0152	1.083	21.89	21.89
1	3/21/78	12	32	0.091	0.0160	1.141	22.00	22.00
1	3/21/78	12	42	0.094	0.0171	1.216	22.20	22.20
1	3/21/78	12	55	0.098	0.0181	1.292	22.47	22.47
1	3/21/78	13	12	0.101	0.0192	1.368	22.85	22.85
1	3/21/78	13	24	0.104	0.0202	1.443	23.13	23.13
1	3/21/78	13	42	0.107	0.0213	1.519	23.57	23.57
1	3/21/78	13	53	0.110	0.0224	1.595	23.86	23.86
1	3/21/78	14	32	0.110	0.0224	1.595	24.89	24.89
1	3/21/78	14	35	0.113	0.0234	1.670	24.97	24.97
1	3/21/78	14	48	0.116	0.0245	1.746	25.34	25.34
1	3/21/78	15	6	0.119	0.0256	1.822	25.88	25.88
1	3/21/78	15	10	0.116	0.0245	1.746	26.00	26.00
1	3/21/78	15	17	0.113	0.0234	1.670	26.20	26.20
1	3/21/78	15	43	0.113	0.0234	1.670	26.92	26.92
1	3/21/78	15	45	0.116	0.0245	1.746	26.98	26.98
1	3/21/78	15	49	0.119	0.0256	1.822	27.10	27.10
1	3/21/78	15	52	0.122	0.0266	1.898	27.19	27.19
1	3/21/78	15	58	0.119	0.0256	1.822	27.38	27.38
1	3/21/78	16	1	0.116	0.0245	1.746	27.47	27.47
1	3/21/78	16	7	0.113	0.0234	1.670	27.64	27.64
1	3/21/78	16	11	0.110	0.0224	1.595	27.75	27.75
1	3/21/78	16	25	0.110	0.0224	1.595	28.12	28.12
1	3/21/78	16	27	0.107	0.0213	1.519	28.17	28.17
1	3/21/78	16	41	0.110	0.0224	1.595	28.53	28.53
1	3/21/78	16	56	0.107	0.0213	1.519	28.92	28.92
1	3/21/78	17	5	0.104	0.0202	1.443	29.14	29.14
1	3/21/78	17	12	0.101	0.0192	1.368	29.31	29.31
1	3/21/78	17	24	0.098	0.0181	1.292	29.57	29.57
1	3/21/78	17	36	0.094	0.0171	1.216	29.82	29.82
1	3/21/78	17	45	0.091	0.0160	1.141	30.00	30.00
1	3/21/78	17	59	0.088	0.0152	1.083	30.26	30.26
1	3/21/78	18	9	0.085	0.0144	1.025	30.44	30.44
1	3/21/78	18	22	0.082	0.0136	0.967	30.65	30.65
1	3/21/78	18	33	0.079	0.0127	0.909	30.82	30.82
1	3/21/78	18	48	0.076	0.0119	0.851	31.04	31.04
1	3/21/78	19	0	0.073	0.0111	0.793	31.21	31.21
1	3/21/78	19	16	0.070	0.0103	0.735	31.41	31.41
1	3/21/78	19	30	0.067	0.0095	0.677	31.58	31.58
1	3/21/78	19	53	0.064	0.0087	0.619	31.83	31.83
1	3/21/78	20	0	0.061	0.0079	0.561	31.89	31.89
1	3/21/78	20	15	0.058	0.0073	0.523	32.03	32.03
1	3/21/78	20	49	0.055	0.0068	0.485	32.32	32.32
1	3/21/78	21	4	0.052	0.0063	0.447	32.43	32.43
1	3/21/78	21	18	0.049	0.0057	0.409	32.53	32.53
1	3/21/78	21	29	0.046	0.0052	0.370	32.60	32.60
1	3/21/78	21	36	0.043	0.0047	0.332	32.64	32.64
1	3/21/78	21	43	0.040	0.0041	0.294	32.68	32.68
1	3/21/78	21	49	0.037	0.0036	0.256	32.71	32.71
1	3/21/78	21	56	0.034	0.0031	0.218	32.74	32.74
1	3/21/78	22	2	0.030	0.0025	0.180	32.76	32.76
1	3/21/78	22	16	0.027	0.0023	0.162	32.80	32.80
1	3/21/78	22	32	0.024	0.0020	0.144	32.84	32.84
1	3/21/78	23	55	0.024	0.0020	0.144	33.03	33.03
1	3/22/78	0	16	0.027	0.0023	0.162	33.09	33.09
1	3/22/78	0	28	0.027	0.0023	0.162	33.12	33.12
1	3/22/78	0	44	0.024	0.0020	0.144	33.16	33.16
1	3/22/78	1	2	0.021	0.0018	0.126	33.20	33.20
1	3/22/78	1	31	0.018	0.0015	0.108	33.26	33.26
1	3/22/78	2	12	0.015	0.0013	0.090	33.33	33.33
1	3/22/78	2	36	0.012	0.0010	0.072	33.36	33.36
1	3/22/78	2	56	0.009	0.0008	0.054	33.38	33.38
1	3/22/78	3	12	0.006	0.0005	0.036	33.39	33.39
1	3/22/78	3	30	0.0	0.0	0.0	33.40	33.40
1	3/22/78	10	0	0.0	0.0	0.0	33.40	33.40
1	3/22/78	10	2	0.006	0.0005	0.036	33.40	33.40
1	3/22/78	10	8	0.009	0.0008	0.054	33.40	33.40
1	3/22/78	10	16	0.012	0.0010	0.072	33.41	33.41
1	3/22/78	10	23	0.015	0.0013	0.090	33.42	33.42
1	3/22/78	10	30	0.018	0.0015	0.108	33.43	33.43
1	3/22/78	10	34	0.021	0.0018	0.126	33.44	33.44
1	3/22/78	10	38	0.024	0.0020	0.144	33.45	33.45
1	3/22/78	10	43	0.027	0.0023	0.162	33.46	33.46
1	3/22/78	10	46	0.030	0.0025	0.180	33.47	33.47
1	3/22/78	10	50	0.034	0.0031	0.218	33.48	33.48
1	3/22/78	10	54	0.037	0.0036	0.256	33.50	33.50
1	3/22/78	10	58	0.040	0.0041	0.294	33.52	33.52
1	3/22/78	11	2	0.043	0.0047	0.332	33.54	33.54
1	3/22/78	11	8	0.046	0.0052	0.370	33.57	33.57
1	3/22/78	11	13	0.049	0.0057	0.409	33.60	33.60
1	3/22/78	11	18	0.052	0.0063	0.447	33.64	33.64
1	3/22/78	11	24	0.055	0.0068	0.485	33.69	33.69
1	3/22/78	11	30	0.058	0.0073	0.523	33.74	33.74

TABLE D1-11. CONTINUED

SITE	DATE	HOUR	MIN	STAGE M	RUNOFF RATE CMS	RUNOFF INTENSITY MMPH	STORM RUNOFF MM	ANNUAL RUNOFF MM
1	3/22/78	11	34	0.061	0.0079	0.561	33.77	33.77
1	3/22/78	11	38	0.064	0.0087	0.619	33.81	33.81
1	3/22/78	11	42	0.067	0.0095	0.677	33.86	33.86
1	3/22/78	11	50	0.070	0.0103	0.735	33.95	33.95
1	3/22/78	12	3	0.073	0.0111	0.793	34.12	34.12
1	3/22/78	12	17	0.076	0.0119	0.851	34.31	34.31
1	3/22/78	12	32	0.079	0.0127	0.909	34.53	34.53
1	3/22/78	12	57	0.082	0.0136	0.967	34.92	34.92
1	3/22/78	13	28	0.082	0.0136	0.967	35.42	35.42
1	3/22/78	13	44	0.079	0.0127	0.909	35.67	35.67
1	3/22/78	13	58	0.076	0.0119	0.851	35.87	35.87
1	3/22/78	14	5	0.073	0.0111	0.793	35.97	35.97
1	3/22/78	14	18	0.070	0.0103	0.735	36.13	36.13
1	3/22/78	14	52	0.067	0.0095	0.677	36.53	36.53
1	3/22/78	15	14	0.064	0.0087	0.619	36.77	36.77
1	3/22/78	15	27	0.061	0.0079	0.561	36.90	36.90
1	3/22/78	15	43	0.058	0.0073	0.523	37.04	37.04
1	3/22/78	15	55	0.055	0.0068	0.485	37.14	37.14
1	3/22/78	16	5	0.055	0.0068	0.485	37.23	37.23
1	3/22/78	16	23	0.052	0.0063	0.447	37.37	37.37
1	3/22/78	16	38	0.049	0.0057	0.409	37.47	37.47
1	3/22/78	16	53	0.046	0.0052	0.370	37.57	37.57
1	3/22/78	17	4	0.043	0.0047	0.332	37.63	37.63
1	3/22/78	17	18	0.040	0.0041	0.294	37.71	37.71
1	3/22/78	17	33	0.037	0.0036	0.256	37.78	37.78
1	3/22/78	17	45	0.034	0.0031	0.218	37.82	37.82
1	3/22/78	17	59	0.030	0.0025	0.180	37.87	37.87
1	3/22/78	18	16	0.027	0.0023	0.162	37.92	37.92
1	3/22/78	18	31	0.024	0.0020	0.144	37.96	37.96
1	3/22/78	18	47	0.021	0.0018	0.126	37.99	37.99
1	3/22/78	19	4	0.018	0.0015	0.108	38.03	38.03
1	3/22/78	19	21	0.015	0.0013	0.090	38.05	38.05
1	3/22/78	19	35	0.012	0.0010	0.072	38.07	38.07
1	3/22/78	19	48	0.009	0.0008	0.054	38.09	38.09
1	3/22/78	19	59	0.006	0.0005	0.036	38.09	38.09
1	3/22/78	20	2	0.003	0.0003	0.018	38.10	38.10
1	3/22/78	20	6	0.0	0.0	0.0	38.10	38.10
1	3/22/78	20	41	0.0	0.0	0.0	38.10	38.10
1	3/22/78	20	47	0.003	0.0003	0.018	38.10	38.10
1	3/22/78	20	58	0.006	0.0005	0.036	38.10	38.10
1	3/22/78	21	6	0.003	0.0003	0.018	38.11	38.11
1	3/22/78	21	15	0.0	0.0	0.0	38.11	38.11
1	3/23/78	13	52	0.0	0.0	0.0	0.0	38.11
1	3/23/78	13	56	0.006	0.0005	0.036	0.00	38.11
1	3/23/78	14	0	0.009	0.0008	0.054	0.00	38.11
1	3/23/78	14	8	0.012	0.0010	0.072	0.01	38.12
1	3/23/78	16	40	0.012	0.0010	0.072	0.19	38.30
1	3/23/78	17	16	0.009	0.0008	0.054	0.23	38.34
1	3/23/78	17	52	0.006	0.0005	0.036	0.26	38.37
1	3/23/78	18	36	0.003	0.0003	0.018	0.28	38.39
1	3/23/78	18	52	0.0	0.0	0.0	0.28	38.39
1	4/ 9/78	18	20	0.0	0.0	0.0	0.0	38.39
1	4/ 9/78	18	21	0.006	0.0005	0.036	0.00	38.39
1	4/ 9/78	18	23	0.012	0.0010	0.072	0.00	38.39
1	4/ 9/78	18	24	0.021	0.0018	0.126	0.00	38.39
1	4/ 9/78	18	25	0.027	0.0023	0.162	0.01	38.39
1	4/ 9/78	18	26	0.034	0.0031	0.218	0.01	38.40
1	4/ 9/78	18	30	0.037	0.0036	0.256	0.03	38.41
1	4/ 9/78	18	32	0.034	0.0031	0.218	0.03	38.42
1	4/ 9/78	18	38	0.030	0.0025	0.180	0.05	38.44
1	4/ 9/78	18	50	0.030	0.0025	0.180	0.09	38.48
1	4/ 9/78	18	53	0.027	0.0023	0.162	0.10	38.49
1	4/ 9/78	18	55	0.024	0.0020	0.144	0.10	38.49
1	4/ 9/78	18	57	0.021	0.0018	0.126	0.11	38.49
1	4/ 9/78	18	59	0.018	0.0015	0.108	0.11	38.50
1	4/ 9/78	19	1	0.015	0.0013	0.090	0.11	38.50
1	4/ 9/78	19	3	0.012	0.0010	0.072	0.12	38.50
1	4/ 9/78	19	7	0.009	0.0008	0.054	0.12	38.51
1	4/ 9/78	19	11	0.006	0.0005	0.036	0.12	38.51
1	4/ 9/78	19	16	0.003	0.0003	0.018	0.13	38.51
1	4/ 9/78	19	26	0.0	0.0	0.0	0.13	38.52
1	4/17/78	13	53	0.0	0.0	0.0	0.0	38.52
1	4/17/78	13	54	0.009	0.0008	0.054	0.00	38.52
1	4/17/78	13	55	0.012	0.0010	0.072	0.00	38.52
1	4/17/78	13	58	0.015	0.0013	0.090	0.01	38.52
1	4/17/78	14	19	0.015	0.0013	0.090	0.04	38.55
1	4/17/78	14	24	0.018	0.0015	0.108	0.05	38.56
1	4/17/78	14	39	0.021	0.0018	0.126	0.07	38.59
1	4/17/78	14	44	0.021	0.0018	0.126	0.08	38.60
1	4/17/78	14	54	0.018	0.0015	0.108	0.10	38.62
1	4/17/78	15	3	0.015	0.0013	0.090	0.12	38.63
1	4/17/78	15	10	0.012	0.0010	0.072	0.13	38.64
1	4/17/78	15	14	0.015	0.0013	0.090	0.13	38.65
1	4/17/78	15	17	0.018	0.0015	0.108	0.14	38.65
1	4/17/78	15	20	0.021	0.0018	0.126	0.14	38.66
1	4/17/78	15	25	0.018	0.0015	0.108	0.15	38.67
1	4/17/78	15	34	0.015	0.0013	0.090	0.17	38.68
1	4/17/78	15	39	0.012	0.0010	0.072	0.18	38.69
1	4/17/78	15	46	0.015	0.0013	0.090	0.19	38.70
1	4/17/78	15	54	0.012	0.0010	0.072	0.20	38.71
1	4/17/78	16	2	0.009	0.0008	0.054	0.20	38.72
1	4/17/78	16	7	0.006	0.0005	0.036	0.21	38.72
1	4/17/78	16	13	0.003	0.0003	0.018	0.21	38.73
1	4/17/78	16	17	0.0	0.0	0.0	0.21	38.73
1	4/17/78	16	25	0.0	0.0	0.0	0.21	38.73
1	4/17/78	16	27	0.003	0.0003	0.018	0.21	38.73
1	4/17/78	16	31	0.006	0.0005	0.036	0.21	38.73
1	4/17/78	16	35	0.006	0.0005	0.036	0.22	38.73

TABLE D1-11. CONTINUED

SITE	DATE	HOUR	MIN	STAGE M	RUNOFF RATE CMS	RUNOFF INTENSITY MMPH	STORM RUNOFF MM	ANNUAL RUNOFF MM
1	4/17/78	16	41	0.003	0.0003	0.018	0.22	38.73
1	4/17/78	16	50	0.0	0.0	0.0	0.22	38.74
1	4/17/78	22	43	0.0	0.0	0.0	0.22	38.74
1	4/17/78	22	44	0.006	0.0005	0.036	0.22	38.74
1	4/17/78	22	45	0.009	0.0008	0.054	0.22	38.74
1	4/17/78	22	50	0.009	0.0008	0.054	0.23	38.74
1	4/17/78	22	53	0.012	0.0010	0.072	0.23	38.74
1	4/17/78	22	54	0.021	0.0018	0.126	0.23	38.75
1	4/17/78	22	55	0.037	0.0036	0.256	0.23	38.75
1	4/17/78	22	56	0.043	0.0047	0.332	0.24	38.75
1	4/17/78	22	57	0.046	0.0052	0.370	0.24	38.76
1	4/17/78	22	58	0.049	0.0057	0.409	0.25	38.77
1	4/17/78	23	5	0.049	0.0057	0.409	0.30	38.81
1	4/17/78	23	8	0.052	0.0063	0.447	0.32	38.84
1	4/17/78	23	9	0.055	0.0068	0.485	0.33	38.84
1	4/17/78	23	10	0.058	0.0073	0.523	0.34	38.85
1	4/17/78	23	11	0.061	0.0079	0.561	0.35	38.86
1	4/17/78	23	15	0.064	0.0087	0.619	0.38	38.90
1	4/17/78	23	17	0.061	0.0079	0.561	0.40	38.92
1	4/17/78	23	19	0.058	0.0073	0.523	0.42	38.94
1	4/17/78	23	21	0.055	0.0068	0.485	0.44	38.95
1	4/17/78	23	24	0.052	0.0063	0.447	0.46	38.98
1	4/17/78	23	27	0.049	0.0057	0.409	0.48	39.00
1	4/17/78	23	30	0.049	0.0057	0.409	0.50	39.02
1	4/17/78	23	33	0.046	0.0052	0.370	0.52	39.04
1	4/17/78	23	36	0.046	0.0052	0.370	0.54	39.06
1	4/17/78	23	41	0.043	0.0047	0.332	0.57	39.09
1	4/17/78	23	44	0.046	0.0052	0.370	0.59	39.10
1	4/17/78	23	49	0.049	0.0057	0.409	0.62	39.14
1	4/18/78	0	3	0.049	0.0057	0.409	0.72	39.23
1	4/18/78	0	7	0.046	0.0052	0.370	0.74	39.26
1	4/18/78	0	28	0.046	0.0052	0.370	0.87	39.39
1	4/18/78	0	38	0.043	0.0047	0.332	0.93	39.45
1	4/18/78	0	45	0.040	0.0041	0.294	0.97	39.48
1	4/18/78	0	48	0.037	0.0036	0.256	0.98	39.50
1	4/18/78	0	52	0.034	0.0031	0.218	1.00	39.51
1	4/18/78	0	57	0.030	0.0025	0.180	1.01	39.53
1	4/18/78	1	1	0.027	0.0023	0.162	1.03	39.54
1	4/18/78	1	6	0.024	0.0020	0.144	1.04	39.55
1	4/18/78	1	12	0.021	0.0018	0.126	1.05	39.57
1	4/18/78	1	17	0.018	0.0015	0.108	1.06	39.58
1	4/18/78	1	25	0.015	0.0013	0.090	1.07	39.59
1	4/18/78	1	36	0.012	0.0010	0.072	1.09	39.60
1	4/18/78	1	49	0.009	0.0008	0.054	1.10	39.62
1	4/18/78	2	1	0.006	0.0005	0.036	1.11	39.63
1	4/18/78	2	10	0.006	0.0005	0.036	1.12	39.63
1	4/18/78	2	35	0.003	0.0003	0.018	1.13	39.64
1	4/18/78	3	4	0.0	0.0	0.0	1.13	39.65
1	4/18/78	4	7	0.0	0.0	0.0	1.13	39.65
1	4/18/78	4	8	0.006	0.0005	0.036	1.13	39.65
1	4/18/78	4	10	0.009	0.0008	0.054	1.13	39.65
1	4/18/78	4	24	0.009	0.0008	0.054	1.15	39.66
1	4/18/78	4	30	0.012	0.0010	0.072	1.15	39.67
1	4/18/78	4	44	0.009	0.0008	0.054	1.17	39.68
1	4/18/78	4	51	0.009	0.0008	0.054	1.17	39.69
1	4/18/78	5	4	0.012	0.0010	0.072	1.19	39.70
1	4/18/78	5	7	0.015	0.0013	0.090	1.19	39.71
1	4/18/78	5	16	0.012	0.0010	0.072	1.20	39.72
1	4/18/78	5	48	0.009	0.0008	0.054	1.24	39.75
1	4/18/78	5	57	0.006	0.0005	0.036	1.24	39.76
1	4/18/78	6	27	0.006	0.0005	0.036	1.26	39.78
1	4/18/78	6	50	0.003	0.0003	0.018	1.27	39.79
1	4/18/78	8	0	0.0	0.0	0.0	1.28	39.80
1	5/13/78	1	30	0.0	0.0	0.0	0.0	39.80
1	5/13/78	1	36	0.003	0.0003	0.018	0.00	39.80
1	5/13/78	1	56	0.006	0.0005	0.036	0.01	39.81
1	5/13/78	2	20	0.006	0.0005	0.036	0.02	39.82
1	5/13/78	3	13	0.003	0.0003	0.018	0.05	39.85
1	5/13/78	3	36	0.006	0.0005	0.036	0.06	39.86
1	5/13/78	3	44	0.009	0.0008	0.054	0.06	39.86
1	5/13/78	4	21	0.009	0.0008	0.054	0.10	39.90
1	5/13/78	4	37	0.006	0.0005	0.036	0.11	39.91
1	5/13/78	5	16	0.003	0.0003	0.018	0.13	39.92
1	5/13/78	5	30	0.0	0.0	0.0	0.13	39.93
1	5/27/78	16	36	0.0	0.0	0.0	0.0	39.93
1	5/27/78	16	37	0.018	0.0015	0.108	0.00	39.93
1	5/27/78	16	38	0.052	0.0063	0.447	0.01	39.93
1	5/27/78	16	39	0.079	0.0127	0.909	0.02	39.94
1	5/27/78	16	40	0.091	0.0160	1.141	0.03	39.96
1	5/27/78	16	41	0.094	0.0171	1.216	0.05	39.98
1	5/27/78	16	42	0.098	0.0181	1.292	0.07	40.00
1	5/27/78	16	43	0.101	0.0192	1.368	0.10	40.02
1	5/27/78	16	44	0.110	0.0224	1.595	0.12	40.05
1	5/27/78	16	45	0.128	0.0293	2.091	0.15	40.08
1	5/27/78	16	46	0.152	0.0402	2.866	0.19	40.12
1	5/27/78	16	47	0.174	0.0519	3.700	0.25	40.17
1	5/27/78	16	48	0.180	0.0552	3.938	0.31	40.24
1	5/27/78	16	49	0.183	0.0569	4.057	0.38	40.31
1	5/27/78	16	50	0.183	0.0569	4.057	0.45	40.37
1	5/27/78	16	51	0.177	0.0536	3.819	0.51	40.44
1	5/27/78	16	52	0.165	0.0469	3.343	0.57	40.50
1	5/27/78	16	53	0.149	0.0389	2.770	0.62	40.55
1	5/27/78	16	54	0.134	0.0321	2.288	0.66	40.59
1	5/27/78	16	55	0.119	0.0256	1.822	0.70	40.63
1	5/27/78	16	56	0.107	0.0213	1.519	0.73	40.65
1	5/27/78	16	57	0.098	0.0181	1.292	0.75	40.68
1	5/27/78	16	58	0.094	0.0171	1.216	0.77	40.70
1	5/27/78	16	59	0.098	0.0181	1.292	0.79	40.72
1	5/27/78	17	0	0.101	0.0192	1.368	0.81	40.74
1	5/27/78	17	1	0.104	0.0202	1.443	0.84	40.76

TABLE D1-11. CONTINUED

SITE	DATE	HOUR	MIN	STAGE M	RUNOFF RATE CMS	RUNOFF INTENSITY MMPH	STORM RUNOFF MM	ANNUAL RUNOFF MM
1	5/27/78	17	2	0.101	0.0192	1.368	0.86	40.79
1	5/27/78	17	3	0.098	0.0181	1.292	0.88	40.81
1	5/27/78	17	5	0.091	0.0160	1.141	0.92	40.85
1	5/27/78	17	7	0.085	0.0144	1.025	0.96	40.89
1	5/27/78	17	8	0.082	0.0136	0.967	0.98	40.90
1	5/27/78	17	9	0.079	0.0127	0.909	0.99	40.92
1	5/27/78	17	11	0.076	0.0119	0.851	1.02	40.95
1	5/27/78	17	13	0.070	0.0103	0.735	1.05	40.97
1	5/27/78	17	14	0.067	0.0095	0.677	1.06	40.99
1	5/27/78	17	15	0.064	0.0087	0.619	1.07	41.00
1	5/27/78	17	16	0.061	0.0079	0.561	1.08	41.01
1	5/27/78	17	17	0.058	0.0073	0.523	1.09	41.02
1	5/27/78	17	18	0.055	0.0068	0.485	1.10	41.02
1	5/27/78	17	19	0.052	0.0063	0.447	1.10	41.03
1	5/27/78	17	20	0.049	0.0057	0.409	1.11	41.04
1	5/27/78	17	22	0.046	0.0052	0.370	1.13	41.05
1	5/27/78	17	23	0.043	0.0047	0.332	1.13	41.06
1	5/27/78	17	24	0.040	0.0041	0.294	1.14	41.06
1	5/27/78	17	25	0.037	0.0036	0.256	1.14	41.07
1	5/27/78	17	27	0.034	0.0031	0.218	1.15	41.08
1	5/27/78	17	28	0.030	0.0025	0.180	1.15	41.08
1	5/27/78	17	30	0.027	0.0023	0.162	1.16	41.08
1	5/27/78	17	32	0.024	0.0020	0.144	1.16	41.09
1	5/27/78	17	34	0.021	0.0018	0.126	1.17	41.09
1	5/27/78	17	36	0.018	0.0015	0.108	1.17	41.10
1	5/27/78	17	40	0.015	0.0013	0.090	1.18	41.10
1	5/27/78	17	43	0.012	0.0010	0.072	1.18	41.11
1	5/27/78	17	47	0.009	0.0008	0.054	1.19	41.11
1	5/27/78	17	50	0.006	0.0005	0.036	1.19	41.11
1	5/27/78	17	59	0.003	0.0003	0.018	1.19	41.12
1	5/27/78	18	6	0.0	0.0	0.0	1.19	41.12
1	5/31/78	22	14	0.0	0.0	0.0	0.0	41.12
1	5/31/78	22	17	0.003	0.0003	0.018	0.00	41.12
1	5/31/78	22	19	0.006	0.0005	0.036	0.00	41.12
1	5/31/78	22	20	0.024	0.0020	0.144	0.00	41.12
1	5/31/78	22	21	0.061	0.0079	0.561	0.01	41.13
1	5/31/78	22	22	0.091	0.0160	1.141	0.02	41.14
1	5/31/78	22	24	0.088	0.0152	1.083	0.06	41.18
1	5/31/78	22	25	0.082	0.0136	0.967	0.08	41.20
1	5/31/78	22	26	0.070	0.0103	0.735	0.09	41.21
1	5/31/78	22	27	0.061	0.0079	0.561	0.10	41.22
1	5/31/78	22	28	0.055	0.0068	0.485	0.11	41.23
1	5/31/78	22	29	0.049	0.0057	0.409	0.12	41.24
1	5/31/78	22	30	0.046	0.0052	0.370	0.12	41.24
1	5/31/78	22	31	0.043	0.0047	0.332	0.13	41.25
1	5/31/78	22	32	0.040	0.0041	0.294	0.14	41.26
1	5/31/78	22	38	0.037	0.0036	0.256	0.16	41.28
1	5/31/78	22	41	0.034	0.0031	0.218	0.18	41.29
1	5/31/78	22	42	0.030	0.0025	0.180	0.18	41.30
1	5/31/78	22	43	0.027	0.0023	0.162	0.18	41.30
1	5/31/78	22	44	0.024	0.0020	0.144	0.18	41.30
1	5/31/78	22	46	0.021	0.0018	0.126	0.19	41.31
1	5/31/78	22	48	0.018	0.0015	0.108	0.19	41.31
1	5/31/78	22	51	0.015	0.0013	0.090	0.20	41.32
1	5/31/78	22	56	0.012	0.0010	0.072	0.21	41.33
1	5/31/78	23	4	0.009	0.0008	0.054	0.21	41.33
1	5/31/78	23	10	0.006	0.0005	0.036	0.22	41.34
1	5/31/78	23	19	0.003	0.0003	0.018	0.22	41.34
1	5/31/78	23	26	0.0	0.0	0.0	0.22	41.34
1	6/15/78	1	20	0.0	0.0	0.0	0.0	41.34
1	6/15/78	1	21	0.003	0.0003	0.018	0.00	41.34
1	6/15/78	1	22	0.012	0.0010	0.072	0.00	41.34
1	6/15/78	1	23	0.021	0.0018	0.126	0.00	41.34
1	6/15/78	1	24	0.027	0.0023	0.162	0.00	41.35
1	6/15/78	1	25	0.030	0.0025	0.180	0.01	41.35
1	6/15/78	1	27	0.030	0.0025	0.180	0.01	41.36
1	6/15/78	1	30	0.027	0.0023	0.162	0.02	41.36
1	6/15/78	1	31	0.024	0.0020	0.144	0.02	41.37
1	6/15/78	1	32	0.021	0.0018	0.126	0.03	41.37
1	6/15/78	1	35	0.018	0.0015	0.108	0.03	41.37
1	6/15/78	1	38	0.021	0.0018	0.126	0.04	41.38
1	6/15/78	1	39	0.027	0.0023	0.162	0.04	41.38
1	6/15/78	1	40	0.030	0.0025	0.180	0.04	41.39
1	6/15/78	1	41	0.034	0.0031	0.218	0.05	41.39
1	6/15/78	1	42	0.037	0.0036	0.256	0.05	41.39
1	6/15/78	1	44	0.040	0.0041	0.294	0.06	41.40
1	6/15/78	1	45	0.043	0.0047	0.332	0.07	41.41
1	6/15/78	1	46	0.049	0.0057	0.409	0.07	41.41
1	6/15/78	1	47	0.055	0.0068	0.485	0.08	41.42
1	6/15/78	1	48	0.067	0.0095	0.677	0.09	41.43
1	6/15/78	1	49	0.076	0.0119	0.851	0.10	41.44
1	6/15/78	1	50	0.085	0.0144	1.025	0.12	41.46
1	6/15/78	1	51	0.088	0.0152	1.083	0.13	41.48
1	6/15/78	1	52	0.091	0.0160	1.141	0.15	41.50
1	6/15/78	1	53	0.098	0.0181	1.292	0.17	41.52
1	6/15/78	1	54	0.104	0.0202	1.443	0.20	41.54
1	6/15/78	1	57	0.104	0.0202	1.443	0.27	41.61
1	6/15/78	1	58	0.101	0.0192	1.368	0.29	41.63
1	6/15/78	1	59	0.098	0.0181	1.292	0.31	41.66
1	6/15/78	2	0	0.094	0.0171	1.216	0.34	41.68
1	6/15/78	2	1	0.088	0.0152	1.083	0.35	41.70
1	6/15/78	2	3	0.085	0.0144	1.025	0.39	41.73
1	6/15/78	2	5	0.088	0.0152	1.083	0.42	41.77
1	6/15/78	2	6	0.091	0.0160	1.141	0.44	41.78
1	6/15/78	2	7	0.094	0.0171	1.216	0.46	41.80
1	6/15/78	2	9	0.098	0.0181	1.292	0.50	41.85
1	6/15/78	2	13	0.098	0.0181	1.292	0.59	41.93
1	6/15/78	2	14	0.094	0.0171	1.216	0.61	41.95
1	6/15/78	2	15	0.091	0.0160	1.141	0.63	41.97
1	6/15/78	2	16	0.094	0.0171	1.216	0.65	41.99

TABLE DI-11. CONTINUED

SITE	DATE	HOUR	MIN	STAGE M	RUNOFF RATE CMS	RUNOFF INTENSITY MMPH	STORM RUNOFF MM	ANNUAL RUNOFF MM
1	6/15/78	2	18	0.091	0.0160	1.141	0.69	42.03
1	6/15/78	2	19	0.076	0.0119	0.851	0.71	42.05
1	6/15/78	2	20	0.070	0.0103	0.735	0.72	42.06
1	6/15/78	2	21	0.067	0.0095	0.677	0.73	42.07
1	6/15/78	2	22	0.064	0.0087	0.619	0.74	42.08
1	6/15/78	2	23	0.058	0.0073	0.523	0.75	42.09
1	6/15/78	2	24	0.055	0.0068	0.485	0.76	42.10
1	6/15/78	2	25	0.052	0.0063	0.447	0.77	42.11
1	6/15/78	2	26	0.046	0.0052	0.370	0.77	42.12
1	6/15/78	2	27	0.043	0.0047	0.332	0.78	42.12
1	6/15/78	2	29	0.040	0.0041	0.294	0.79	42.13
1	6/15/78	2	30	0.037	0.0036	0.256	0.80	42.14
1	6/15/78	2	32	0.034	0.0031	0.218	0.80	42.15
1	6/15/78	2	33	0.030	0.0025	0.180	0.81	42.15
1	6/15/78	2	35	0.027	0.0023	0.162	0.81	42.15
1	6/15/78	2	38	0.024	0.0020	0.144	0.82	42.16
1	6/15/78	2	40	0.027	0.0023	0.162	0.83	42.17
1	6/15/78	2	41	0.030	0.0025	0.180	0.83	42.17
1	6/15/78	2	44	0.034	0.0031	0.218	0.84	42.18
1	6/15/78	2	47	0.030	0.0025	0.180	0.85	42.19
1	6/15/78	2	49	0.027	0.0023	0.162	0.85	42.20
1	6/15/78	2	50	0.024	0.0020	0.144	0.86	42.20
1	6/15/78	2	52	0.021	0.0018	0.126	0.86	42.20
1	6/15/78	2	53	0.018	0.0015	0.108	0.86	42.20
1	6/15/78	2	54	0.012	0.0010	0.072	0.86	42.21
1	6/15/78	2	56	0.009	0.0008	0.054	0.87	42.21
1	6/15/78	2	58	0.006	0.0005	0.036	0.87	42.21
1	6/15/78	3	8	0.003	0.0003	0.018	0.87	42.21
1	6/15/78	3	18	0.0	0.0	0.0	0.87	42.22
1	6/20/78	0	52	0.0	0.0	0.0	0.0	42.22
1	6/20/78	0	53	0.021	0.0018	0.126	0.00	42.22
1	6/20/78	0	54	0.055	0.0068	0.485	0.01	42.22
1	6/20/78	0	55	0.079	0.0127	0.909	0.02	42.23
1	6/20/78	0	56	0.091	0.0160	1.141	0.03	42.25
1	6/20/78	0	57	0.094	0.0171	1.216	0.05	42.27
1	6/20/78	0	58	0.098	0.0181	1.292	0.08	42.29
1	6/20/78	0	59	0.101	0.0192	1.368	0.10	42.31
1	6/20/78	1	1	0.104	0.0202	1.443	0.14	42.36
1	6/20/78	1	4	0.104	0.0202	1.443	0.22	42.43
1	6/20/78	1	5	0.116	0.0245	1.746	0.24	42.46
1	6/20/78	1	6	0.131	0.0307	2.188	0.28	42.49
1	6/20/78	1	7	0.146	0.0375	2.673	0.32	42.53
1	6/20/78	1	8	0.162	0.0452	3.224	0.37	42.58
1	6/20/78	1	9	0.177	0.0536	3.819	0.42	42.64
1	6/20/78	1	10	0.183	0.0569	4.057	0.49	42.71
1	6/20/78	1	11	0.186	0.0589	4.199	0.56	42.77
1	6/20/78	1	12	0.189	0.0609	4.340	0.63	42.85
1	6/20/78	1	13	0.186	0.0589	4.199	0.70	42.92
1	6/20/78	1	14	0.183	0.0569	4.057	0.77	42.99
1	6/20/78	1	16	0.180	0.0552	3.938	0.90	43.12
1	6/20/78	1	17	0.174	0.0519	3.700	0.97	43.18
1	6/20/78	1	18	0.171	0.0502	3.581	1.03	43.24
1	6/20/78	1	19	0.165	0.0469	3.343	1.09	43.30
1	6/20/78	1	20	0.162	0.0452	3.224	1.14	43.36
1	6/20/78	1	21	0.158	0.0436	3.105	1.19	43.41
1	6/20/78	1	22	0.155	0.0419	2.986	1.24	43.46
1	6/20/78	1	23	0.152	0.0402	2.866	1.29	43.51
1	6/20/78	1	28	0.152	0.0402	2.866	1.53	43.75
1	6/20/78	1	30	0.149	0.0389	2.770	1.62	43.84
1	6/20/78	1	32	0.146	0.0375	2.673	1.72	43.93
1	6/20/78	1	34	0.143	0.0361	2.576	1.80	44.02
1	6/20/78	1	35	0.140	0.0348	2.479	1.85	44.06
1	6/20/78	1	36	0.137	0.0334	2.382	1.89	44.10
1	6/20/78	1	37	0.134	0.0321	2.285	1.92	44.14
1	6/20/78	1	38	0.131	0.0307	2.188	1.96	44.18
1	6/20/78	1	39	0.125	0.0280	1.994	2.00	44.21
1	6/20/78	1	40	0.122	0.0266	1.898	2.03	44.24
1	6/20/78	1	41	0.116	0.0245	1.746	2.06	44.27
1	6/20/78	1	42	0.113	0.0234	1.670	2.09	44.30
1	6/20/78	1	43	0.110	0.0224	1.595	2.12	44.33
1	6/20/78	1	44	0.104	0.0202	1.443	2.14	44.36
1	6/20/78	1	45	0.101	0.0192	1.368	2.16	44.38
1	6/20/78	1	46	0.098	0.0181	1.292	2.19	44.40
1	6/20/78	1	47	0.091	0.0160	1.141	2.21	44.42
1	6/20/78	1	48	0.088	0.0152	1.083	2.22	44.44
1	6/20/78	1	49	0.085	0.0144	1.025	2.24	44.46
1	6/20/78	1	50	0.082	0.0136	0.967	2.26	44.47
1	6/20/78	1	51	0.079	0.0127	0.909	2.27	44.49
1	6/20/78	1	52	0.073	0.0111	0.793	2.29	44.50
1	6/20/76	1	53	0.070	0.0103	0.735	2.30	44.52
1	6/20/78	1	54	0.067	0.0095	0.677	2.31	44.53
1	6/20/78	1	56	0.064	0.0087	0.619	2.33	44.55
1	6/20/78	1	58	0.061	0.0079	0.561	2.35	44.57
1	6/20/78	2	1	0.064	0.0087	0.619	2.36	44.60
1	6/20/78	2	3	0.067	0.0095	0.677	2.41	44.62
1	6/20/78	2	4	0.073	0.0111	0.793	2.42	44.63
1	6/20/78	2	5	0.079	0.0127	0.909	2.43	44.65
1	6/20/78	2	6	0.085	0.0144	1.025	2.45	44.66
1	6/20/78	2	7	0.088	0.0152	1.083	2.47	44.68
1	6/20/78	2	8	0.091	0.0160	1.141	2.48	44.70
1	6/20/78	2	10	0.088	0.0152	1.083	2.52	44.74
1	6/20/78	2	11	0.085	0.0144	1.025	2.54	44.75
1	6/20/78	2	13	0.082	0.0136	0.967	2.57	44.79
1	6/20/78	2	14	0.085	0.0144	1.025	2.59	44.80
1	6/20/78	2	15	0.088	0.0152	1.083	2.61	44.82
1	6/20/78	2	16	0.091	0.0160	1.141	2.62	44.84
1	6/20/78	2	17	0.098	0.0181	1.292	2.66	44.86
1	6/20/78	2	18	0.104	0.0202	1.443	2.67	44.88
1	6/20/78	2	22	0.107	0.0213	1.519	2.77	44.98
1	6/20/78	2	24	0.104	0.0202	1.443	2.82	45.03
1	6/20/78	2	25	0.101	0.0192	1.368	2.84	45.05
1	6/20/78	2	26	0.098	0.0181	1.292	2.86	45.08

TABLE D1-11. CONTINUED

SITE	DATE	HOUR	MIN	STAGE M	RUNOFF RATE CMS	RUNOFF INTENSITY MMPH	STORM RUNOFF MM	ANNUAL RUNOFF MM
1	6/20/78	2	28	0.094	0.0171	1.216	2.90	45.12
1	6/20/78	2	30	0.091	0.0160	1.141	2.94	45.16
1	6/20/78	2	32	0.088	0.0152	1.083	2.98	45.19
1	6/20/78	2	34	0.085	0.0144	1.025	3.01	45.23
1	6/20/78	2	36	0.082	0.0136	0.967	3.05	45.26
1	6/20/78	2	43	0.079	0.0127	0.909	3.09	45.31
1	6/20/78	2	47	0.076	0.0119	0.851	3.15	45.37
1	6/20/78	2	51	0.073	0.0111	0.793	3.21	45.42
1	6/20/78	2	54	0.070	0.0111	0.793	3.26	45.48
1	6/20/78	2	55	0.067	0.0103	0.735	3.30	45.51
1	6/20/78	2	56	0.064	0.0095	0.677	3.31	45.53
1	6/20/78	2	57	0.061	0.0087	0.619	3.32	45.54
1	6/20/78	2	58	0.058	0.0079	0.561	3.33	45.55
1	6/20/78	2	59	0.055	0.0073	0.523	3.34	45.56
1	6/20/78	3	0	0.052	0.0068	0.485	3.35	45.56
1	6/20/78	3	1	0.049	0.0063	0.447	3.36	45.57
1	6/20/78	3	3	0.046	0.0057	0.409	3.36	45.58
1	6/20/78	3	4	0.043	0.0052	0.370	3.38	45.59
1	6/20/78	3	6	0.040	0.0047	0.332	3.38	45.60
1	6/20/78	3	8	0.037	0.0041	0.294	3.39	45.61
1	6/20/78	3	10	0.034	0.0036	0.256	3.40	45.62
1	6/20/78	3	12	0.030	0.0031	0.218	3.41	45.63
1	6/20/78	3	14	0.027	0.0025	0.180	3.42	45.63
1	6/20/78	3	15	0.024	0.0023	0.162	3.42	45.64
1	6/20/78	3	18	0.021	0.0020	0.144	3.43	45.64
1	6/20/78	3	20	0.018	0.0018	0.126	3.43	45.65
1	6/20/78	3	24	0.015	0.0015	0.108	3.44	45.65
1	6/20/78	3	29	0.012	0.0013	0.090	3.44	45.66
1	6/20/78	3	36	0.009	0.0010	0.072	3.45	45.66
1	6/20/78	4	0	0.006	0.0008	0.054	3.46	45.67
1	6/20/78	4	32	0.006	0.0005	0.036	3.47	45.69
1	6/20/78	4	34	0.009	0.0005	0.036	3.49	45.71
1	6/20/78	4	36	0.012	0.0008	0.054	3.50	45.71
1	6/20/78	4	42	0.012	0.0010	0.072	3.50	45.71
1	6/20/78	4	44	0.009	0.0010	0.072	3.50	45.72
1	6/20/78	4	50	0.006	0.0008	0.054	3.51	45.72
1	6/20/78	5	2	0.003	0.0005	0.036	3.51	45.73
1	6/20/78	5	15	0.0	0.0003	0.018	3.52	45.73
					0.0	0.0	3.52	45.73
1	8/26/78	20	33	0.0	0.0	0.0	0.0	45.73
1	8/26/78	20	34	0.006	0.0005	0.036	0.00	45.73
1	8/26/78	20	39	0.006	0.0005	0.036	0.00	45.74
1	8/26/78	20	44	0.009	0.0008	0.054	0.01	45.74
1	8/26/78	20	49	0.009	0.0008	0.054	0.01	45.74
1	8/26/78	20	51	0.012	0.0010	0.072	0.01	45.75
1	8/26/78	20	55	0.015	0.0013	0.090	0.02	45.75
1	8/26/78	20	58	0.015	0.0013	0.090	0.02	45.76
1	8/26/78	21	4	0.012	0.0010	0.072	0.03	45.76
1	8/26/78	21	11	0.015	0.0013	0.090	0.04	45.77
1	8/26/78	21	15	0.018	0.0015	0.108	0.05	45.78

SITE	DATE	HOUR	MIN	STAGE M	RUNOFF RATE CMS	RUNOFF INTENSITY MMPH	STORM RUNOFF MM	ANNUAL RUNOFF MM
1	8/26/78	21	19	0.015	0.0013	0.090	0.05	45.79
1	8/26/78	21	23	0.012	0.0010	0.072	0.06	45.79
1	8/26/78	21	28	0.009	0.0008	0.054	0.06	45.80
1	8/26/78	21	32	0.006	0.0005	0.036	0.07	45.80
1	8/26/78	21	36	0.003	0.0003	0.018	0.07	45.80
1	8/26/78	21	40	0.0	0.0	0.0	0.07	45.80
1	9/13/78	22	22	0.0	0.0	0.0	0.0	45.80
1	9/13/78	22	24	0.006	0.0005	0.036	0.00	45.80
1	9/13/78	22	25	0.009	0.0008	0.054	0.00	45.80
1	9/13/78	22	26	0.012	0.0010	0.072	0.00	45.81
1	9/13/78	22	27	0.015	0.0013	0.090	0.00	45.81
1	9/13/78	22	28	0.018	0.0015	0.108	0.01	45.81
1	9/13/78	22	29	0.021	0.0018	0.126	0.01	45.81
1	9/13/78	22	36	0.024	0.0020	0.144	0.02	45.83
1	9/13/78	22	40	0.021	0.0018	0.126	0.03	45.84
1	9/13/78	22	43	0.018	0.0015	0.108	0.04	45.84
1	9/13/78	22	46	0.015	0.0013	0.090	0.04	45.85
1	9/13/78	22	51	0.018	0.0015	0.108	0.05	45.85
1	9/13/78	22	52	0.021	0.0018	0.126	0.05	45.86
1	9/13/78	22	53	0.030	0.0025	0.180	0.06	45.86
1	9/13/78	22	54	0.034	0.0031	0.218	0.06	45.86
1	9/13/78	22	55	0.037	0.0036	0.256	0.06	45.87
1	9/13/78	22	56	0.040	0.0041	0.294	0.07	45.87
1	9/13/78	22	58	0.043	0.0047	0.332	0.08	45.88
1	9/13/78	23	1	0.040	0.0041	0.294	0.09	45.90
1	9/13/78	23	3	0.037	0.0036	0.256	0.10	45.91
1	9/13/78	23	4	0.034	0.0031	0.218	0.11	45.91
1	9/13/78	23	6	0.030	0.0025	0.180	0.11	45.92
1	9/13/78	23	8	0.027	0.0023	0.162	0.12	45.92
1	9/13/78	23	10	0.024	0.0020	0.144	0.12	45.93
1	9/13/78	23	11	0.021	0.0018	0.126	0.13	45.93
1	9/13/78	23	14	0.018	0.0015	0.108	0.13	45.94
1	9/13/78	23	16	0.015	0.0013	0.090	0.14	45.94
1	9/13/78	23	18	0.012	0.0010	0.072	0.14	45.94
1	9/13/78	23	22	0.009	0.0008	0.054	0.14	45.95
1	9/13/78	23	27	0.006	0.0005	0.036	0.15	45.95
1	9/13/78	23	42	0.003	0.0003	0.018	0.15	45.96
1	9/13/78	24	0	0.006	0.0005	0.036	0.16	45.96
1	9/14/78	0	28	0.006	0.0005	0.036	0.18	45.98
1	9/14/78	0	38	0.003	0.0003	0.018	0.18	45.99
1	9/14/78	1	8	0.0	0.0	0.0	0.19	45.99
1	9/19/78	19	12	0.0	0.0	0.0	0.0	45.99
1	9/19/78	19	13	0.003	0.0003	0.018	0.00	45.99
1	9/19/78	19	14	0.006	0.0005	0.036	0.00	45.99
1	9/19/78	19	15	0.012	0.0010	0.072	0.00	45.99
1	9/19/78	19	16	0.021	0.0018	0.126	0.00	45.99
1	9/19/78	19	17	0.030	0.0025	0.180	0.01	46.00
1	9/19/78	19	18	0.037	0.0036	0.256	0.01	46.00

TABLE D1-11. CONCLUDED

SITE	DATE	HOUR	MIN	STAGE M	RUNOFF RATE CMS	RUNOFF INTENSITY MMPH	STORM RUNOFF MM	ANNUAL RUNOFF MM
1	9/19/78	19	20	0.034	0.0031	0.218	0.02	46.01
1	9/19/78	19	21	0.030	0.0025	0.180	0.02	46.01
1	9/19/78	19	22	0.027	0.0023	0.162	0.02	46.01
1	9/19/78	19	24	0.024	0.0020	0.144	0.03	46.02
1	9/19/78	19	25	0.027	0.0023	0.162	0.03	46.02
1	9/19/78	19	26	0.030	0.0025	0.180	0.03	46.02
1	9/19/78	19	27	0.037	0.0036	0.256	0.04	46.03
1	9/19/78	19	29	0.040	0.0041	0.294	0.05	46.04
1	9/19/78	19	32	0.037	0.0036	0.256	0.06	46.05
1	9/19/78	19	33	0.034	0.0031	0.218	0.06	46.05
1	9/19/78	19	34	0.030	0.0025	0.180	0.07	46.06
1	9/19/78	19	36	0.027	0.0023	0.162	0.07	46.06
1	9/19/78	19	37	0.024	0.0020	0.144	0.08	46.07
1	9/19/78	19	38	0.021	0.0018	0.126	0.08	46.07
1	9/19/78	19	39	0.018	0.0015	0.108	0.08	46.07
1	9/19/78	19	41	0.015	0.0013	0.090	0.08	46.07
1	9/19/78	19	42	0.012	0.0010	0.072	0.08	46.07
1	9/19/78	19	45	0.009	0.0008	0.054	0.09	46.08
1	9/19/78	19	47	0.006	0.0005	0.036	0.09	46.08
1	9/19/78	19	51	0.003	0.0003	0.018	0.09	46.08
1	9/19/78	19	59	0.0	0.0	0.0	0.09	46.08
1	9/19/78	21	1	0.0	0.0	0.0	0.09	46.08
1	9/19/78	21	2	0.006	0.0005	0.036	0.09	46.08
1	9/19/78	21	3	0.009	0.0008	0.054	0.09	46.08
1	9/19/78	21	5	0.012	0.0010	0.072	0.10	46.08
1	9/19/78	21	12	0.012	0.0010	0.072	0.10	46.09
1	9/19/78	21	13	0.015	0.0013	0.090	0.11	46.09
1	9/19/78	21	14	0.018	0.0015	0.108	0.11	46.10
1	9/19/78	21	16	0.021	0.0018	0.126	0.11	46.10
1	9/19/78	21	17	0.024	0.0020	0.144	0.11	46.10
1	9/19/78	21	19	0.027	0.0023	0.162	0.12	46.11
1	9/19/78	21	22	0.024	0.0020	0.144	0.13	46.12
1	9/19/78	21	25	0.021	0.0018	0.126	0.13	46.12
1	9/19/78	21	27	0.018	0.0015	0.108	0.14	46.13
1	9/19/78	21	30	0.015	0.0013	0.090	0.14	46.13
1	9/19/78	21	38	0.012	0.0010	0.072	0.15	46.14
1	9/19/78	21	43	0.009	0.0008	0.054	0.16	46.15
1	9/19/78	21	47	0.006	0.0005	0.036	0.16	46.15
1	9/19/78	21	53	0.003	0.0003	0.018	0.16	46.15
1	9/19/78	22	0	0.0	0.0	0.0	0.16	46.15
1	9/20/78	0	52	0.0	0.0	0.0	0.0	46.15
1	9/20/78	1	1	0.003	0.0003	0.018	0.00	46.15
1	9/20/78	1	2	0.006	0.0005	0.036	0.00	46.16
1	9/20/78	1	3	0.009	0.0008	0.054	0.00	46.16
1	9/20/78	1	6	0.012	0.0010	0.072	0.01	46.16
1	9/20/78	1	12	0.009	0.0008	0.054	0.01	46.17
1	9/20/78	1	19	0.006	0.0005	0.036	0.02	46.17
1	9/20/78	1	26	0.009	0.0008	0.054	0.02	46.18
1	9/20/78	1	32	0.009	0.0008	0.054	0.03	46.18
1	9/20/78	1	42	0.006	0.0005	0.036	0.04	46.19
1	9/20/78	1	49	0.003	0.0003	0.018	0.04	46.19
1	9/20/78	1	57	0.0	0.0	0.0	0.04	46.19
1	9/20/78	5	54	0.0	0.0	0.0	0.04	46.19
1	9/20/78	5	58	0.003	0.0003	0.018	0.04	46.19
1	9/20/78	6	13	0.0	0.0	0.0	0.04	46.20
1	9/20/78	7	14	0.0	0.0	0.0	0.04	46.20
1	9/20/78	7	23	0.003	0.0003	0.018	0.04	46.20
1	9/20/78	7	28	0.003	0.0003	0.018	0.05	46.20
1	9/20/78	7	39	0.0	0.0	0.0	0.05	46.20
1	9/20/78	8	38	0.0	0.0	0.0	0.05	46.20
1	9/20/78	8	41	0.003	0.0003	0.018	0.05	46.20
1	9/20/78	8	42	0.006	0.0005	0.036	0.05	46.20
1	9/20/78	8	44	0.009	0.0008	0.054	0.05	46.20
1	9/20/78	8	52	0.012	0.0010	0.072	0.06	46.21
1	9/20/78	9	0	0.009	0.0008	0.054	0.07	46.22
1	9/20/78	9	5	0.006	0.0005	0.036	0.07	46.22
1	9/20/78	9	9	0.009	0.0008	0.054	0.07	46.23
1	9/20/78	9	13	0.012	0.0010	0.072	0.08	46.23
1	9/20/78	9	23	0.012	0.0010	0.072	0.09	46.24
1	9/20/78	9	29	0.009	0.0008	0.054	0.10	46.25
1	9/20/78	9	33	0.006	0.0005	0.036	0.10	46.25
1	9/20/78	9	42	0.003	0.0003	0.018	0.10	46.26
1	9/20/78	9	44	0.006	0.0005	0.036	0.10	46.26
1	9/20/78	9	45	0.009	0.0008	0.054	0.10	46.26
1	9/20/78	9	46	0.012	0.0010	0.072	0.11	46.26
1	9/20/78	9	49	0.015	0.0013	0.090	0.11	46.26
1	9/20/78	9	53	0.018	0.0015	0.108	0.12	46.27
1	9/20/78	9	54	0.021	0.0018	0.126	0.12	46.27
1	9/20/78	9	55	0.024	0.0020	0.144	0.12	46.27
1	9/20/78	9	57	0.027	0.0023	0.162	0.13	46.28
1	9/20/78	10	0	0.030	0.0025	0.180	0.13	46.29
1	9/20/78	10	4	0.027	0.0023	0.162	0.14	46.30
1	9/20/78	10	7	0.024	0.0020	0.144	0.15	46.31
1	9/20/78	10	13	0.021	0.0018	0.126	0.17	46.32
1	9/20/78	10	17	0.018	0.0015	0.108	0.17	46.33
1	9/20/78	10	21	0.015	0.0013	0.090	0.18	46.33
1	9/20/78	10	25	0.012	0.0010	0.072	0.19	46.34
1	9/20/78	10	29	0.009	0.0008	0.054	0.19	46.34
1	9/20/78	10	34	0.006	0.0005	0.036	0.19	46.35
1	9/20/78	10	40	0.003	0.0003	0.018	0.20	46.35
1	9/20/78	10	50	0.0	0.0	0.0	0.20	46.35

TABLE D1-12. FOUR MILE CREEK WATERSHED RUNOFF DATA FOR 1978 SITE 2

SITE	DATE	HOUR	MIN	STAGE M	RUNOFF RATE CMS	RUNOFF INTENSITY MMPH	STORM RUNOFF MM	ANNUAL RUNOFF MM
2	3/20/78	13	30	0.0	0.0	0.0	0.0	0.0
2	3/20/78	15	16	0.018	0.0015	0.085	0.08	0.08
2	3/20/78	15	30	0.128	0.0293	1.658	0.28	0.28
2	3/20/78	15	48	0.052	0.0063	0.354	0.58	0.58
2	3/20/78	16	10	0.046	0.0052	0.294	0.70	0.70
2	3/20/78	17	56	0.040	0.0041	0.233	1.16	1.16
2	3/20/78	18	12	0.037	0.0036	0.203	1.22	1.22
2	3/20/78	19	20	0.037	0.0036	0.203	1.45	1.45
2	3/20/78	19	40	0.034	0.0031	0.173	1.52	1.52
2	3/20/78	19	56	0.030	0.0025	0.142	1.56	1.56
2	3/20/78	20	4	0.034	0.0031	0.173	1.58	1.58
2	3/20/78	20	16	0.037	0.0036	0.203	1.62	1.62
2	3/20/78	20	21	0.037	0.0036	0.203	1.63	1.63
2	3/20/78	20	40	0.034	0.0031	0.173	1.69	1.69
2	3/20/78	21	29	0.030	0.0025	0.142	1.82	1.82
2	3/20/78	22	6	0.027	0.0023	0.128	1.90	1.90
2	3/20/78	23	34	0.024	0.0020	0.114	2.08	2.08
2	3/21/78	0	46	0.021	0.0018	0.100	2.21	2.21
2	3/21/78	2	2	0.018	0.0015	0.085	2.33	2.33
2	3/21/78	2	17	0.018	0.0015	0.085	2.35	2.35
2	3/21/78	3	15	0.021	0.0018	0.100	2.44	2.44
2	3/21/78	3	41	0.024	0.0020	0.114	2.48	2.48
2	3/21/78	3	56	0.027	0.0023	0.128	2.52	2.52
2	3/21/78	4	6	0.030	0.0025	0.142	2.54	2.54
2	3/21/78	4	15	0.034	0.0031	0.173	2.56	2.56
2	3/21/78	4	19	0.037	0.0036	0.203	2.57	2.57
2	3/21/78	4	23	0.040	0.0041	0.233	2.59	2.59
2	3/21/78	4	25	0.043	0.0047	0.263	2.60	2.60
2	3/21/78	4	28	0.046	0.0052	0.294	2.61	2.61
2	3/21/78	4	32	0.049	0.0057	0.324	2.63	2.63
2	3/21/78	4	36	0.052	0.0063	0.354	2.65	2.65
2	3/21/78	4	40	0.055	0.0068	0.384	2.68	2.68
2	3/21/78	4	43	0.058	0.0073	0.415	2.70	2.70
2	3/21/78	4	46	0.061	0.0079	0.445	2.72	2.72
2	3/21/78	4	49	0.064	0.0087	0.491	2.74	2.74
2	3/21/78	4	53	0.067	0.0095	0.537	2.78	2.78
2	3/21/78	4	56	0.070	0.0103	0.583	2.81	2.81
2	3/21/78	4	59	0.073	0.0111	0.629	2.84	2.84
2	3/21/78	5	2	0.076	0.0119	0.675	2.87	2.87
2	3/21/78	5	5	0.079	0.0127	0.720	2.90	2.90
2	3/21/78	5	9	0.082	0.0136	0.766	2.95	2.95
2	3/21/78	5	12	0.085	0.0144	0.812	2.99	2.99
2	3/21/78	5	15	0.088	0.0152	0.858	3.03	3.03
2	3/21/78	5	19	0.091	0.0160	0.904	3.09	3.09
2	3/21/78	5	23	0.094	0.0171	0.964	3.15	3.15
2	3/21/78	5	29	0.098	0.0181	1.024	3.25	3.25
2	3/21/78	5	34	0.101	0.0192	1.084	3.34	3.34
2	3/21/78	5	39	0.104	0.0202	1.144	3.44	3.44
2	3/21/78	5	49	0.107	0.0213	1.204	3.63	3.63
2	3/21/78	5	54	0.110	0.0224	1.264	3.73	3.73
2	3/21/78	6	6	0.113	0.0234	1.324	3.99	3.99
2	3/21/78	6	15	0.116	0.0245	1.384	4.20	4.20
2	3/21/78	6	20	0.119	0.0256	1.444	4.31	4.31
2	3/21/78	6	31	0.122	0.0266	1.504	4.58	4.58
2	3/21/78	6	40	0.125	0.0280	1.581	4.62	4.62
2	3/21/78	6	51	0.128	0.0293	1.658	5.11	5.11
2	3/21/78	6	59	0.131	0.0307	1.735	5.34	5.34
2	3/21/78	7	9	0.134	0.0321	1.812	5.63	5.63
2	3/21/78	7	18	0.137	0.0334	1.886	5.91	5.91
2	3/21/78	7	26	0.134	0.0321	1.812	6.16	6.16
2	3/21/78	7	29	0.131	0.0307	1.735	6.25	6.25
2	3/21/78	7	31	0.128	0.0293	1.658	6.30	6.30
2	3/21/78	7	32	0.125	0.0280	1.581	6.33	6.33
2	3/21/78	7	34	0.122	0.0266	1.504	6.38	6.38
2	3/21/78	7	36	0.119	0.0256	1.444	6.43	6.43
2	3/21/78	7	37	0.116	0.0245	1.384	6.45	6.45
2	3/21/78	7	38	0.113	0.0234	1.324	6.48	6.48
2	3/21/78	7	39	0.110	0.0224	1.264	6.50	6.50
2	3/21/78	7	40	0.107	0.0213	1.204	6.52	6.52
2	3/21/78	7	41	0.104	0.0202	1.144	6.54	6.54
2	3/21/78	7	42	0.101	0.0192	1.084	6.56	6.56
2	3/21/78	7	43	0.098	0.0181	1.024	6.57	6.57
2	3/21/78	7	44	0.094	0.0171	0.964	6.59	6.59
2	3/21/78	7	45	0.091	0.0160	0.904	6.61	6.61
2	3/21/78	7	46	0.088	0.0152	0.858	6.62	6.62
2	3/21/78	7	48	0.085	0.0144	0.812	6.65	6.65
2	3/21/78	7	49	0.082	0.0136	0.766	6.66	6.66
2	3/21/78	7	50	0.079	0.0127	0.720	6.67	6.67
2	3/21/78	7	51	0.076	0.0119	0.675	6.69	6.69
2	3/21/78	7	52	0.073	0.0111	0.629	6.70	6.70
2	3/21/78	7	53	0.070	0.0103	0.583	6.71	6.71
2	3/21/78	7	54	0.067	0.0095	0.537	6.72	6.72
2	3/21/78	7	55	0.064	0.0087	0.491	6.73	6.73
2	3/21/78	7	56	0.061	0.0079	0.445	6.73	6.73
2	3/21/78	7	57	0.058	0.0073	0.415	6.74	6.74
2	3/21/78	7	59	0.055	0.0068	0.384	6.75	6.75
2	3/21/78	8	1	0.052	0.0063	0.384	6.77	6.77
2	3/21/78	8	5	0.049	0.0057	0.324	6.79	6.79
2	3/21/78	8	8	0.046	0.0052	0.294	6.80	6.80
2	3/21/78	8	14	0.043	0.0047	0.263	6.83	6.83
2	3/21/78	8	23	0.040	0.0041	0.233	6.87	6.87
2	3/21/78	8	30	0.043	0.0047	0.263	6.90	6.90
2	3/21/78	8	35	0.040	0.0041	0.233	6.92	6.92
2	3/21/78	8	40	0.037	0.0036	0.203	6.94	6.94
2	3/21/78	8	47	0.034	0.0031	0.173	6.96	6.96
2	3/21/78	8	53	0.030	0.0025	0.142	6.97	6.97
2	3/21/78	8	54	0.027	0.0023	0.128	6.98	6.98
2	3/21/78	8	56	0.024	0.0020	0.114	6.98	6.98
2	3/21/78	8	59	0.021	0.0018	0.100	6.99	6.99
2	3/21/78	9	5	0.018	0.0015	0.085	7.00	7.00
2	3/21/78	9	36	0.015	0.0013	0.071	7.04	7.04
2	3/21/78	10	20	0.018	0.0018	0.085	7.11	7.11
2	3/21/78	11	0	0.021	0.0018	0.100	7.15	7.15
2	3/21/78	11	23	0.024	0.0020	0.114	7.19	7.19

TABLE D1-12. CONTINUED

SITE	DATE	HOUR	MIN	STAGE M	RUNOFF RATE CMS	RUNOFF INTENSITY MMPH	STORM RUNOFF MM	ANNUAL RUNOFF MM
2	3/21/78	11	33	0.027	0.0023	0.128	7.21	7.21
2	3/21/78	11	41	0.030	0.0025	0.142	7.23	7.23
2	3/21/78	11	47	0.034	0.0031	0.173	7.25	7.25
2	3/21/78	11	52	0.037	0.0036	0.203	7.26	7.26
2	3/21/78	11	59	0.040	0.0041	0.233	7.29	7.29
2	3/21/78	12	4	0.043	0.0047	0.263	7.31	7.31
2	3/21/78	12	15	0.046	0.0052	0.294	7.36	7.36
2	3/21/78	12	24	0.049	0.0057	0.324	7.41	7.41
2	3/21/78	12	32	0.052	0.0063	0.354	7.45	7.45
2	3/21/78	12	45	0.055	0.0066	0.384	7.53	7.53
2	3/21/78	13	1	0.058	0.0073	0.415	7.64	7.64
2	3/21/78	13	15	0.061	0.0079	0.445	7.74	7.74
2	3/21/78	13	24	0.064	0.0087	0.491	7.81	7.81
2	3/21/78	13	33	0.067	0.0095	0.537	7.89	7.89
2	3/21/78	13	41	0.070	0.0103	0.583	7.96	7.96
2	3/21/78	13	46	0.073	0.0111	0.629	8.01	8.01
2	3/21/78	13	51	0.076	0.0119	0.675	8.07	8.07
2	3/21/78	14	1	0.079	0.0127	0.720	8.18	8.18
2	3/21/78	14	9	0.082	0.0136	0.766	8.28	8.28
2	3/21/78	14	13	0.085	0.0144	0.812	8.33	8.33
2	3/21/78	14	14	0.088	0.0152	0.858	8.35	8.35
2	3/21/78	14	15	0.091	0.0160	0.904	8.36	8.36
2	3/21/78	14	16	0.094	0.0171	0.964	8.38	8.38
2	3/21/78	14	17	0.098	0.0181	1.024	8.39	8.39
2	3/21/78	14	19	0.101	0.0192	1.084	8.43	8.43
2	3/21/78	14	20	0.104	0.0202	1.144	8.45	8.45
2	3/21/78	14	21	0.107	0.0213	1.204	8.47	8.47
2	3/21/78	14	23	0.110	0.0224	1.264	8.51	8.51
2	3/21/78	14	28	0.110	0.0224	1.264	8.61	8.61
2	3/21/78	14	32	0.113	0.0234	1.324	8.70	8.70
2	3/21/78	14	35	0.113	0.0234	1.324	8.77	8.77
2	3/21/78	14	37	0.116	0.0245	1.384	8.81	8.81
2	3/21/78	14	41	0.119	0.0256	1.444	8.91	8.91
2	3/21/78	14	45	0.122	0.0266	1.504	9.00	9.00
2	3/21/78	14	49	0.125	0.0280	1.581	9.11	9.11
2	3/21/78	14	58	0.128	0.0293	1.658	9.35	9.35
2	3/21/78	15	1	0.131	0.0307	1.735	9.43	9.43
2	3/21/78	15	4	0.134	0.0321	1.812	9.52	9.52
2	3/21/78	15	27	0.134	0.0321	1.812	10.22	10.22
2	3/21/78	16	6	0.131	0.0307	1.735	11.37	11.37
2	3/21/78	16	20	0.128	0.0293	1.658	11.77	11.77
2	3/21/78	16	36	0.125	0.0280	1.581	12.20	12.20
2	3/21/78	16	45	0.122	0.0266	1.504	12.43	12.43
2	3/21/78	16	57	0.119	0.0256	1.444	12.72	12.72
2	3/21/78	17	9	0.116	0.0245	1.384	13.01	13.01
2	3/21/78	17	13	0.113	0.0234	1.324	13.10	13.10
2	3/21/78	17	25	0.110	0.0224	1.264	13.36	13.36
2	3/21/78	17	32	0.107	0.0213	1.204	13.50	13.50
2	3/21/78	17	44	0.104	0.0202	1.144	13.73	13.73
2	3/21/78	17	51	0.101	0.0192	1.084	13.86	13.86
2	3/21/78	18	1	0.098	0.0181	1.024	14.04	14.04
2	3/21/78	18	9	0.094	0.0171	0.964	14.17	14.17
2	3/21/78	18	19	0.091	0.0160	0.904	14.33	14.33
2	3/21/78	18	29	0.088	0.0152	0.858	14.48	14.48
2	3/21/78	18	43	0.085	0.0144	0.812	14.67	14.67
2	3/21/78	18	54	0.082	0.0136	0.766	14.82	14.82
2	3/21/78	19	0	0.079	0.0127	0.720	14.89	14.89
2	3/21/78	19	10	0.076	0.0119	0.675	15.01	15.01
2	3/21/78	19	21	0.073	0.0111	0.629	15.13	15.13
2	3/21/78	19	33	0.070	0.0103	0.583	15.25	15.25
2	3/21/78	19	48	0.067	0.0095	0.537	15.39	15.39
2	3/21/78	20	4	0.064	0.0087	0.491	15.52	15.52
2	3/21/78	20	22	0.061	0.0079	0.445	15.66	15.66
2	3/21/78	20	39	0.058	0.0073	0.415	15.79	15.79
2	3/21/78	20	55	0.055	0.0066	0.384	15.89	15.89
2	3/21/78	21	13	0.052	0.0063	0.354	16.00	16.00
2	3/21/78	21	22	0.049	0.0057	0.324	16.05	16.05
2	3/21/78	21	32	0.046	0.0052	0.294	16.11	16.11
2	3/21/78	21	41	0.043	0.0047	0.263	16.15	16.15
2	3/21/78	21	52	0.040	0.0041	0.233	16.19	16.19
2	3/21/78	22	6	0.037	0.0036	0.203	16.24	16.24
2	3/21/78	22	16	0.034	0.0031	0.173	16.27	16.27
2	3/21/78	22	35	0.030	0.0025	0.142	16.32	16.32
2	3/21/78	22	48	0.027	0.0023	0.128	16.35	16.35
2	3/21/78	23	6	0.024	0.0020	0.114	16.39	16.39
2	3/21/78	23	23	0.027	0.0023	0.128	16.42	16.42
2	3/21/78	23	54	0.030	0.0025	0.142	16.49	16.49
2	3/22/78	0	20	0.027	0.0023	0.128	16.55	16.55
2	3/22/78	1	36	0.024	0.0020	0.114	16.71	16.71
2	3/22/78	2	8	0.021	0.0018	0.100	16.76	16.76
2	3/22/78	2	23	0.021	0.0018	0.100	16.79	16.79
2	3/22/78	2	54	0.018	0.0015	0.085	16.84	16.84
2	3/22/78	3	42	0.015	0.0013	0.071	16.90	16.90
2	3/22/78	4	45	0.012	0.0010	0.057	16.97	16.97
2	3/22/78	6	18	0.009	0.0008	0.043	17.04	17.04
2	3/22/78	8	20	0.006	0.0005	0.028	17.12	17.12
2	3/22/78	9	0	0.006	0.0005	0.028	17.13	17.13
2	3/22/78	9	56	0.009	0.0008	0.043	17.17	17.17
2	3/22/78	10	14	0.012	0.0010	0.057	17.18	17.18
2	3/22/78	10	23	0.015	0.0013	0.071	17.19	17.19
2	3/22/78	10	30	0.018	0.0015	0.085	17.20	17.20
2	3/22/78	10	42	0.021	0.0018	0.100	17.22	17.22
2	3/22/78	11	6	0.021	0.0018	0.100	17.26	17.26
2	3/22/78	11	17	0.024	0.0020	0.114	17.28	17.28
2	3/22/78	11	23	0.027	0.0023	0.128	17.29	17.29
2	3/22/78	11	29	0.030	0.0025	0.142	17.31	17.31
2	3/22/78	11	35	0.034	0.0031	0.173	17.32	17.32
2	3/22/78	11	38	0.037	0.0036	0.203	17.33	17.33
2	3/22/78	11	44	0.040	0.0041	0.233	17.35	17.35
2	3/22/78	11	52	0.040	0.0041	0.233	17.38	17.38
2	3/22/78	11	58	0.043	0.0047	0.263	17.41	17.41
2	3/22/78	12	2	0.046	0.0052	0.294	17.43	17.43
2	3/22/78	12	8	0.049	0.0057	0.324	17.46	17.46
2	3/22/78	12	13	0.052	0.0063	0.354	17.49	17.49

TABLE D1-12. CONTINUED

SITE	DATE	HOUR	MIN	STAGE M	RUNOFF RATE CMS	RUNOFF INTENSITY MMPH	STORM RUNOFF MM	ANNUAL RUNOFF MM
2	3/22/78	12	15	0.055	0.0068	0.384	17.50	17.50
2	3/22/78	12	17	0.058	0.0073	0.415	17.51	17.51
2	3/22/78	12	19	0.061	0.0079	0.445	17.53	17.53
2	3/22/78	12	20	0.064	0.0087	0.491	17.53	17.53
2	3/22/78	12	22	0.067	0.0095	0.537	17.55	17.55
2	3/22/78	12	24	0.070	0.0103	0.583	17.57	17.57
2	3/22/78	12	28	0.076	0.0119	0.675	17.61	17.61
2	3/22/78	12	32	0.079	0.0127	0.720	17.66	17.66
2	3/22/78	12	35	0.082	0.0136	0.766	17.69	17.69
2	3/22/78	12	39	0.085	0.0144	0.812	17.75	17.75
2	3/22/78	12	45	0.085	0.0144	0.812	17.83	17.83
2	3/22/78	12	47	0.088	0.0152	0.858	17.86	17.86
2	3/22/78	12	51	0.091	0.0160	0.904	17.91	17.91
2	3/22/78	12	54	0.094	0.0171	0.964	17.96	17.96
2	3/22/78	13	5	0.098	0.0181	1.024	18.14	18.14
2	3/22/78	13	9	0.101	0.0192	1.084	18.21	18.21
2	3/22/78	13	21	0.104	0.0202	1.144	18.44	18.44
2	3/22/78	13	25	0.107	0.0213	1.204	18.52	18.52
2	3/22/78	13	29	0.104	0.0202	1.144	18.59	18.59
2	3/22/78	13	44	0.101	0.0192	1.084	18.87	18.87
2	3/22/78	13	56	0.098	0.0181	1.024	19.08	19.08
2	3/22/78	14	0	0.094	0.0171	0.964	19.15	19.15
2	3/22/78	14	13	0.098	0.0181	1.024	19.36	19.36
2	3/22/78	14	26	0.098	0.0181	1.024	19.59	19.59
2	3/22/78	14	44	0.094	0.0171	0.964	19.88	19.88
2	3/22/78	14	56	0.094	0.0171	0.964	20.08	20.08
2	3/22/78	15	7	0.091	0.0160	0.904	20.25	20.25
2	3/22/78	15	24	0.088	0.0152	0.858	20.50	20.50
2	3/22/78	15	48	0.088	0.0152	0.858	20.84	20.84
2	3/22/78	16	12	0.085	0.0144	0.812	21.18	21.18
2	3/22/78	16	27	0.082	0.0136	0.766	21.37	21.37
2	3/22/78	16	40	0.079	0.0127	0.720	21.53	21.53
2	3/22/78	16	49	0.076	0.0119	0.675	21.64	21.64
2	3/22/78	17	5	0.073	0.0111	0.629	21.81	21.81
2	3/22/78	17	16	0.070	0.0103	0.583	21.92	21.92
2	3/22/78	17	32	0.067	0.0095	0.537	22.07	22.07
2	3/22/78	17	43	0.064	0.0087	0.491	22.17	22.17
2	3/22/78	17	56	0.061	0.0079	0.445	22.27	22.27
2	3/22/78	18	10	0.058	0.0073	0.415	22.37	22.37
2	3/22/78	18	24	0.055	0.0068	0.384	22.46	22.46
2	3/22/78	18	40	0.052	0.0063	0.354	22.56	22.56
2	3/22/78	18	45	0.049	0.0057	0.324	22.59	22.59
2	3/22/78	19	0	0.046	0.0052	0.294	22.67	22.67
2	3/22/78	19	15	0.043	0.0047	0.263	22.74	22.74
2	3/22/78	19	26	0.040	0.0041	0.233	22.78	22.78
2	3/22/78	19	46	0.037	0.0036	0.203	22.85	22.85
2	3/22/78	19	53	0.034	0.0031	0.173	22.88	22.88
2	3/22/78	20	6	0.030	0.0025	0.142	22.91	22.91
2	3/22/78	20	14	0.027	0.0023	0.128	22.93	22.93
2	3/22/78	20	29	0.024	0.0020	0.114	22.96	22.96
2	3/22/78	20	45	0.024	0.0020	0.114	22.99	22.99
2	3/22/78	21	12	0.027	0.0023	0.128	23.04	23.04
2	3/22/78	21	18	0.030	0.0025	0.142	23.06	23.06
2	3/22/78	21	23	0.034	0.0031	0.173	23.07	23.07
2	3/22/78	21	27	0.037	0.0036	0.203	23.08	23.08
2	3/22/78	21	31	0.040	0.0041	0.233	23.10	23.10
2	3/22/78	21	34	0.043	0.0047	0.263	23.11	23.11
2	3/22/78	21	37	0.046	0.0052	0.294	23.12	23.12
2	3/22/78	21	41	0.049	0.0057	0.324	23.14	23.14
2	3/22/78	21	44	0.052	0.0063	0.354	23.16	23.16
2	3/22/78	21	50	0.055	0.0068	0.384	23.20	23.20
2	3/22/78	21	56	0.058	0.0073	0.415	23.24	23.24
2	3/22/78	22	6	0.061	0.0079	0.445	23.31	23.31
2	3/22/78	22	28	0.064	0.0087	0.491	23.48	23.48
2	3/22/78	22	56	0.061	0.0079	0.445	23.70	23.70
2	3/22/78	23	4	0.058	0.0073	0.415	23.76	23.76
2	3/22/78	23	10	0.055	0.0068	0.384	23.80	23.80
2	3/22/78	23	15	0.052	0.0063	0.354	23.83	23.83
2	3/22/78	23	17	0.049	0.0057	0.324	23.84	23.84
2	3/22/78	23	21	0.046	0.0052	0.294	23.86	23.86
2	3/22/78	23	24	0.043	0.0047	0.263	23.87	23.87
2	3/22/78	23	27	0.040	0.0041	0.233	23.89	23.89
2	3/22/78	23	31	0.037	0.0036	0.203	23.90	23.90
2	3/22/78	23	34	0.034	0.0031	0.173	23.91	23.91
2	3/22/78	23	39	0.030	0.0025	0.142	23.92	23.92
2	3/22/78	23	43	0.027	0.0023	0.128	23.93	23.93
2	3/22/78	23	50	0.024	0.0020	0.114	23.95	23.95
2	3/22/78	23	58	0.021	0.0018	0.100	23.96	23.96
2	3/23/78	0	6	0.018	0.0015	0.085	23.97	23.97
2	3/23/78	0	13	0.015	0.0013	0.071	23.98	23.98
2	3/23/78	0	27	0.012	0.0010	0.057	24.00	24.00
2	3/23/78	0	54	0.009	0.0008	0.043	24.02	24.02
2	3/23/78	2	10	0.009	0.0008	0.043	24.07	24.07
2	3/23/78	5	6	0.006	0.0005	0.028	24.18	24.18
2	3/23/78	7	16	0.003	0.0003	0.014	24.22	24.22
2	3/23/78	8	59	0.003	0.0003	0.014	24.25	24.25
2	3/23/78	10	20	0.0	0.0	0.0	24.26	24.26
2	3/23/78	14	4	0.0	0.0	0.0	24.26	24.26
2	3/23/78	14	6	0.009	0.0008	0.043	24.26	24.26
2	3/23/78	14	11	0.012	0.0010	0.057	24.26	24.26
2	3/23/78	14	28	0.015	0.0013	0.071	24.28	24.28
2	3/23/78	14	51	0.018	0.0015	0.085	24.31	24.31
2	3/23/78	16	42	0.018	0.0015	0.085	24.47	24.47
2	3/23/78	17	34	0.015	0.0013	0.071	24.54	24.54
2	3/23/78	18	10	0.012	0.0010	0.057	24.57	24.57
2	3/23/78	18	43	0.009	0.0008	0.043	24.60	24.60
2	3/23/78	19	10	0.006	0.0005	0.028	24.62	24.62
2	3/23/78	19	28	0.009	0.0008	0.043	24.63	24.63
2	3/23/78	19	52	0.009	0.0008	0.043	24.65	24.65
2	3/23/78	21	24	0.006	0.0005	0.028	24.70	24.70
2	3/23/78	23	10	0.003	0.0003	0.014	24.74	24.74
2	3/23/78	24	0	0.0	0.0	0.0	24.74	24.74

TABLE D1-12. CONTINUED

SITE	DATE	HOUR	MIN	STAGE M	RUNOFF RATE CMS	RUNOFF INTENSITY MMPH	STORM RUNOFF MM	ANNUAL RUNOFF MM
2	3/26/78	15	0	0.0	0.0	0.0	0.0	24.74
2	3/26/78	15	42	0.006	0.0005	0.028	0.01	24.75
2	3/26/78	15	50	0.012	0.0010	0.057	0.02	24.76
2	3/26/78	18	24	0.006	0.0005	0.028	0.13	24.87
2	3/26/78	19	20	0.0	0.0	0.0	0.14	24.88
2	3/27/78	9	0	0.0	0.0	0.0	0.0	24.88
2	3/27/78	11	4	0.003	0.0003	0.014	0.01	24.90
2	3/27/78	12	49	0.006	0.0005	0.028	0.05	24.93
2	3/27/78	12	52	0.009	0.0008	0.043	0.05	24.94
2	3/27/78	12	53	0.012	0.0010	0.057	0.05	24.94
2	3/27/78	12	55	0.015	0.0013	0.071	0.06	24.94
2	3/27/78	12	58	0.018	0.0015	0.085	0.06	24.94
2	3/27/78	13	4	0.021	0.0018	0.100	0.07	24.95
2	3/27/78	13	15	0.024	0.0020	0.114	0.09	24.97
2	3/27/78	13	25	0.027	0.0023	0.128	0.11	24.99
2	3/27/78	13	30	0.030	0.0025	0.142	0.12	25.00
2	3/27/78	13	44	0.034	0.0031	0.173	0.16	25.04
2	3/27/78	14	46	0.030	0.0025	0.142	0.32	25.20
2	3/27/78	15	41	0.027	0.0023	0.128	0.44	25.33
2	3/27/78	16	23	0.024	0.0020	0.114	0.53	25.41
2	3/27/78	16	45	0.021	0.0018	0.100	0.57	25.45
2	3/27/78	17	10	0.018	0.0015	0.085	0.61	25.49
2	3/27/78	17	34	0.015	0.0013	0.071	0.64	25.52
2	3/27/78	17	53	0.012	0.0010	0.057	0.66	25.54
2	3/27/78	18	13	0.009	0.0008	0.043	0.68	25.56
2	3/27/78	18	37	0.006	0.0005	0.028	0.69	25.57
2	3/27/78	19	3	0.003	0.0003	0.014	0.70	25.58
2	3/27/78	19	20	0.0	0.0	0.0	0.70	25.58
2	4/ 5/78	18	8	0.0	0.0	0.0	0.0	25.58
2	4/ 5/78	18	18	0.003	0.0003	0.014	0.00	25.58
2	4/ 5/78	18	24	0.006	0.0005	0.028	0.00	25.59
2	4/ 5/78	18	26	0.009	0.0008	0.043	0.00	25.59
2	4/ 5/78	18	27	0.012	0.0010	0.057	0.01	25.59
2	4/ 5/78	18	31	0.015	0.0013	0.071	0.01	25.59
2	4/ 5/78	18	40	0.018	0.0015	0.085	0.02	25.60
2	4/ 5/78	18	54	0.015	0.0013	0.071	0.04	25.62
2	4/ 5/78	18	59	0.012	0.0010	0.057	0.04	25.63
2	4/ 5/78	19	2	0.009	0.0008	0.043	0.05	25.63
2	4/ 5/78	19	6	0.006	0.0005	0.028	0.05	25.63
2	4/ 5/78	19	9	0.003	0.0003	0.014	0.05	25.63
2	4/ 5/78	19	14	0.0	0.0	0.0	0.05	25.63
2	4/ 9/78	18	15	0.0	0.0	0.0	0.0	25.63
2	4/ 9/78	18	16	0.067	0.0095	0.537	0.00	25.64
2	4/ 9/78	18	17	0.076	0.0119	0.675	0.01	25.65
2	4/ 9/78	18	18	0.085	0.0144	0.812	0.03	25.66
2	4/ 9/78	18	19	0.091	0.0160	0.904	0.04	25.68
2	4/ 9/78	18	20	0.094	0.0171	0.964	0.06	25.69
2	4/ 9/78	18	21	0.098	0.0181	1.024	0.07	25.71
2	4/ 9/78	18	22	0.101	0.0192	1.084	0.09	25.73
2	4/ 9/78	18	23	0.107	0.0213	1.204	0.11	25.74
2	4/ 9/78	18	24	0.113	0.0234	1.324	0.13	25.77
2	4/ 9/78	18	25	0.119	0.0256	1.444	0.15	25.79
2	4/ 9/78	18	26	0.122	0.0266	1.504	0.18	25.81
2	4/ 9/78	18	28	0.122	0.0266	1.504	0.23	25.86
2	4/ 9/78	18	29	0.119	0.0256	1.444	0.25	25.89
2	4/ 9/78	18	30	0.116	0.0245	1.384	0.28	25.91
2	4/ 9/78	18	31	0.113	0.0234	1.324	0.30	25.93
2	4/ 9/78	18	32	0.110	0.0224	1.264	0.32	25.96
2	4/ 9/78	18	34	0.107	0.0213	1.204	0.36	26.00
2	4/ 9/78	18	35	0.104	0.0202	1.144	0.38	26.02
2	4/ 9/78	18	36	0.098	0.0181	1.024	0.40	26.03
2	4/ 9/78	18	38	0.094	0.0171	0.964	0.43	26.07
2	4/ 9/78	18	39	0.091	0.0160	0.904	0.45	26.08
2	4/ 9/78	18	40	0.088	0.0152	0.858	0.46	26.10
2	4/ 9/78	18	43	0.085	0.0144	0.812	0.51	26.14
2	4/ 9/78	18	50	0.085	0.0144	0.812	0.60	26.23
2	4/ 9/78	18	57	0.082	0.0136	0.766	0.69	26.33
2	4/ 9/78	18	59	0.079	0.0127	0.720	0.72	26.35
2	4/ 9/78	19	1	0.076	0.0119	0.675	0.74	26.37
2	4/ 9/78	19	3	0.073	0.0111	0.629	0.76	26.40
2	4/ 9/78	19	5	0.070	0.0103	0.583	0.78	26.42
2	4/ 9/78	19	7	0.067	0.0095	0.537	0.80	26.44
2	4/ 9/78	19	9	0.064	0.0087	0.491	0.82	26.45
2	4/ 9/78	19	10	0.061	0.0079	0.445	0.83	26.46
2	4/ 9/78	19	12	0.058	0.0073	0.415	0.84	26.47
2	4/ 9/78	19	13	0.055	0.0068	0.384	0.85	26.48
2	4/ 9/78	19	15	0.052	0.0063	0.354	0.86	26.49
2	4/ 9/78	19	17	0.049	0.0057	0.324	0.87	26.50
2	4/ 9/78	19	19	0.046	0.0052	0.294	0.88	26.51
2	4/ 9/78	19	21	0.043	0.0047	0.263	0.89	26.52
2	4/ 9/78	19	23	0.040	0.0041	0.233	0.90	26.53
2	4/ 9/78	19	26	0.037	0.0036	0.203	0.91	26.54
2	4/ 9/78	19	30	0.034	0.0031	0.173	0.92	26.56
2	4/ 9/78	19	34	0.030	0.0025	0.142	0.93	26.57
2	4/ 9/78	19	39	0.027	0.0023	0.128	0.94	26.58
2	4/ 9/78	19	42	0.024	0.0020	0.114	0.95	26.58
2	4/ 9/78	19	44	0.021	0.0018	0.100	0.95	26.59
2	4/ 9/78	19	48	0.018	0.0015	0.085	0.96	26.59
2	4/ 9/78	19	50	0.015	0.0013	0.071	0.96	26.60
2	4/ 9/78	19	54	0.012	0.0010	0.057	0.97	26.60
2	4/ 9/78	19	58	0.009	0.0008	0.043	0.97	26.60
2	4/ 9/78	20	4	0.006	0.0005	0.028	0.97	26.61
2	4/ 9/78	20	14	0.003	0.0003	0.014	0.98	26.61
2	4/ 9/78	20	20	0.0	0.0	0.0	0.98	26.61
2	4/17/78	14	6	0.0	0.0	0.0	0.0	26.61
2	4/17/78	14	11	0.003	0.0003	0.014	0.00	26.61

TABLE D1-12. CONTINUED

SITE	DATE	HOUR	MIN	STAGE M	RUNOFF RATE CMS	RUNOFF INTENSITY MMPH	STORM RUNOFF MM	ANNUAL RUNOFF MM
2	4/17/78	14	13	0.006	0.0005	0.028	0.00	26.61
2	4/17/78	14	15	0.009	0.0008	0.043	0.00	26.61
2	4/17/78	14	17	0.012	0.0010	0.057	0.00	26.62
2	4/17/78	14	21	0.015	0.0013	0.071	0.01	26.62
2	4/17/78	14	24	0.018	0.0015	0.085	0.01	26.62
2	4/17/78	14	26	0.021	0.0018	0.100	0.02	26.63
2	4/17/78	14	28	0.024	0.0020	0.114	0.02	26.63
2	4/17/78	14	30	0.027	0.0023	0.128	0.02	26.63
2	4/17/78	14	32	0.030	0.0025	0.142	0.03	26.64
2	4/17/78	14	35	0.034	0.0031	0.173	0.04	26.65
2	4/17/78	14	37	0.037	0.0036	0.203	0.04	26.65
2	4/17/78	14	39	0.040	0.0041	0.233	0.05	26.66
2	4/17/78	14	41	0.043	0.0047	0.263	0.06	26.67
2	4/17/78	14	43	0.046	0.0052	0.294	0.07	26.68
2	4/17/78	14	44	0.049	0.0057	0.324	0.07	26.68
2	4/17/78	14	46	0.052	0.0063	0.354	0.08	26.69
2	4/17/78	15	2	0.052	0.0063	0.354	0.18	26.79
2	4/17/78	15	8	0.049	0.0057	0.324	0.21	26.82
2	4/17/78	15	13	0.046	0.0052	0.294	0.24	26.85
2	4/17/78	15	18	0.049	0.0057	0.324	0.26	26.87
2	4/17/78	15	22	0.052	0.0063	0.354	0.29	26.90
2	4/17/78	15	45	0.055	0.0068	0.384	0.43	27.04
2	4/17/78	15	51	0.052	0.0063	0.354	0.46	27.08
2	4/17/78	15	55	0.049	0.0057	0.324	0.49	27.10
2	4/17/78	16	0	0.046	0.0052	0.294	0.51	27.12
2	4/17/78	16	4	0.043	0.0047	0.263	0.53	27.14
2	4/17/78	16	8	0.040	0.0041	0.233	0.55	27.16
2	4/17/78	16	12	0.037	0.0036	0.203	0.56	27.17
2	4/17/78	16	16	0.034	0.0031	0.173	0.57	27.19
2	4/17/78	16	22	0.030	0.0025	0.142	0.59	27.20
2	4/17/78	16	30	0.030	0.0025	0.142	0.61	27.22
2	4/17/78	16	36	0.027	0.0023	0.128	0.62	27.23
2	4/17/78	16	43	0.024	0.0020	0.114	0.64	27.25
2	4/17/78	16	45	0.021	0.0018	0.100	0.64	27.25
2	4/17/78	16	49	0.018	0.0015	0.085	0.65	27.26
2	4/17/78	16	52	0.015	0.0013	0.071	0.65	27.26
2	4/17/78	16	55	0.012	0.0010	0.057	0.65	27.26
2	4/17/78	16	58	0.009	0.0008	0.043	0.66	27.27
2	4/17/78	17	1	0.006	0.0005	0.028	0.66	27.27
2	4/17/78	17	4	0.003	0.0003	0.014	0.66	27.27
2	4/17/78	17	34	0.0	0.0	0.0	0.66	27.27
2	4/17/78	22	50	0.0	0.0	0.0	0.66	27.27
2	4/17/78	22	52	0.003	0.0003	0.014	0.66	27.27
2	4/17/78	22	53	0.006	0.0005	0.028	0.66	27.27
2	4/17/78	22	54	0.009	0.0008	0.043	0.66	27.27
2	4/17/78	22	55	0.012	0.0010	0.057	0.66	27.28
2	4/17/78	22	56	0.030	0.0025	0.142	0.67	27.28
2	4/17/78	22	57	0.043	0.0047	0.263	0.67	27.28
2	4/17/78	22	58	0.055	0.0068	0.384	0.67	27.29
2	4/17/78	22	59	0.064	0.0087	0.491	0.68	27.29
2	4/17/78	23	0	0.073	0.0111	0.629	0.69	27.30
2	4/17/78	23	1	0.079	0.0127	0.720	0.70	27.31
2	4/17/78	23	2	0.085	0.0144	0.812	0.72	27.33
2	4/17/78	23	3	0.088	0.0152	0.858	0.73	27.34
2	4/17/78	23	4	0.091	0.0160	0.904	0.74	27.36
2	4/17/78	23	5	0.094	0.0171	0.964	0.76	27.37
2	4/17/78	23	6	0.098	0.0181	1.024	0.78	27.39
2	4/17/78	23	7	0.104	0.0202	1.144	0.79	27.41
2	4/17/78	23	8	0.113	0.0234	1.324	0.81	27.43
2	4/17/78	23	9	0.128	0.0293	1.658	0.84	27.45
2	4/17/78	23	10	0.140	0.0348	1.965	0.87	27.48
2	4/17/78	23	11	0.149	0.0389	2.196	0.90	27.52
2	4/17/78	23	12	0.155	0.0419	2.367	0.94	27.55
2	4/17/78	23	13	0.158	0.0436	2.461	0.98	27.59
2	4/17/78	23	14	0.162	0.0452	2.556	1.02	27.64
2	4/17/78	23	15	0.165	0.0469	2.650	1.07	27.68
2	4/17/78	23	16	0.168	0.0486	2.745	1.11	27.72
2	4/17/78	23	18	0.171	0.0502	2.839	1.21	27.82
2	4/17/78	23	21	0.174	0.0519	2.933	1.35	27.96
2	4/17/78	23	24	0.177	0.0536	3.028	1.50	28.11
2	4/17/78	23	25	0.180	0.0552	3.122	1.55	28.16
2	4/17/78	23	27	0.183	0.0569	3.217	1.66	28.27
2	4/17/78	23	30	0.186	0.0569	3.329	1.82	28.43
2	4/17/78	23	33	0.183	0.0569	3.217	1.98	28.59
2	4/17/78	23	36	0.180	0.0552	3.122	2.14	28.75
2	4/17/78	23	40	0.177	0.0536	3.028	2.35	28.96
2	4/17/78	23	42	0.174	0.0519	2.933	2.45	29.06
2	4/17/78	23	44	0.171	0.0502	2.839	2.54	29.15
2	4/17/78	23	48	0.168	0.0486	2.745	2.73	29.34
2	4/17/78	23	52	0.162	0.0452	2.556	2.91	29.52
2	4/17/78	23	58	0.158	0.0436	2.461	3.16	29.77
2	4/18/78	0	3	0.155	0.0419	2.367	3.36	29.97
2	4/18/78	0	6	0.152	0.0402	2.272	3.47	30.08
2	4/18/78	0	9	0.149	0.0389	2.196	3.59	30.20
2	4/18/78	0	12	0.146	0.0375	2.119	3.69	30.30
2	4/18/78	0	14	0.143	0.0361	2.042	3.76	30.37
2	4/18/78	0	16	0.140	0.0348	1.965	3.83	30.44
2	4/18/78	0	18	0.137	0.0334	1.888	3.89	30.50
2	4/18/78	0	21	0.134	0.0321	1.812	3.99	30.60
2	4/18/78	0	24	0.131	0.0307	1.735	4.07	30.69
2	4/18/78	0	26	0.128	0.0293	1.658	4.13	30.74
2	4/18/78	0	29	0.125	0.0280	1.581	4.21	30.82
2	4/18/78	0	33	0.122	0.0266	1.504	4.31	30.93
2	4/18/78	0	36	0.119	0.0256	1.444	4.39	31.00
2	4/18/78	0	40	0.116	0.0245	1.384	4.48	31.09
2	4/18/78	0	42	0.113	0.0234	1.324	4.53	31.14
2	4/18/78	0	45	0.110	0.0224	1.264	4.59	31.20
2	4/18/78	0	46	0.107	0.0213	1.204	4.61	31.22
2	4/18/78	0	48	0.104	0.0202	1.144	4.65	31.26
2	4/18/78	0	49	0.101	0.0192	1.084	4.67	31.28
2	4/18/78	0	51	0.098	0.0181	1.024	4.71	31.32
2	4/18/78	0	53	0.094	0.0171	0.964	4.74	31.35
2	4/18/78	0	54	0.091	0.0160	0.904	4.75	31.37
2	4/18/78	0	55	0.088	0.0152	0.858	4.77	31.38

TABLE D1-12. CONTINUED

SITE	DATE	HOUR	MIN	STAGE M	RUNOFF RATE CMS	RUNOFF INTENSITY MMPH	STORM RUNOFF MM	ANNUAL RUNOFF MM
2	4/18/78	0	56	0.082	0.0136	0.766	4.78	31.39
2	4/18/78	0	58	0.079	0.0127	0.720	4.81	31.42
2	4/18/78	1	0	0.076	0.0119	0.675	4.83	31.44
2	4/18/78	1	2	0.073	0.0111	0.629	4.85	31.46
2	4/18/78	1	4	0.070	0.0103	0.583	4.87	31.48
2	4/18/78	1	7	0.067	0.0095	0.537	4.90	31.51
2	4/18/78	1	9	0.064	0.0087	0.491	4.92	31.53
2	4/18/78	1	12	0.061	0.0079	0.445	4.94	31.55
2	4/18/78	1	15	0.058	0.0073	0.415	4.96	31.57
2	4/18/78	1	17	0.055	0.0068	0.384	4.98	31.59
2	4/18/78	1	19	0.052	0.0063	0.354	4.99	31.60
2	4/18/78	1	21	0.049	0.0057	0.324	5.00	31.61
2	4/18/78	1	23	0.046	0.0052	0.294	5.01	31.62
2	4/18/78	1	25	0.043	0.0047	0.263	5.02	31.63
2	4/18/78	1	27	0.040	0.0041	0.233	5.03	31.64
2	4/18/78	1	30	0.037	0.0036	0.203	5.04	31.65
2	4/18/78	1	32	0.034	0.0031	0.173	5.05	31.66
2	4/18/78	1	37	0.030	0.0025	0.142	5.06	31.67
2	4/18/78	1	40	0.027	0.0023	0.128	5.06	31.68
2	4/18/78	1	46	0.024	0.0020	0.114	5.08	31.69
2	4/18/78	1	51	0.021	0.0018	0.100	5.09	31.70
2	4/18/78	1	57	0.018	0.0015	0.085	5.10	31.71
2	4/18/78	2	4	0.015	0.0013	0.071	5.10	31.71
2	4/18/78	2	11	0.012	0.0010	0.057	5.11	31.72
2	4/18/78	2	18	0.009	0.0008	0.043	5.12	31.73
2	4/18/78	2	27	0.006	0.0005	0.028	5.12	31.73
2	4/18/78	2	44	0.003	0.0003	0.014	5.13	31.74
2	4/18/78	2	52	0.0	0.0	0.0	5.13	31.74
2	4/18/78	4	20	0.0	0.0	0.0	5.13	31.74
2	4/18/78	4	22	0.003	0.0003	0.014	5.13	31.74
2	4/18/78	4	24	0.006	0.0005	0.028	5.13	31.74
2	4/18/78	4	26	0.009	0.0008	0.043	5.13	31.74
2	4/18/78	4	34	0.012	0.0010	0.057	5.14	31.75
2	4/18/78	4	40	0.015	0.0013	0.071	5.15	31.76
2	4/18/78	5	38	0.015	0.0013	0.071	5.21	31.82
2	4/18/78	5	47	0.012	0.0010	0.057	5.22	31.83
2	4/18/78	5	53	0.009	0.0008	0.043	5.23	31.84
2	4/18/78	5	59	0.006	0.0005	0.028	5.23	31.84
2	4/18/78	6	8	0.003	0.0003	0.014	5.24	31.85
2	4/18/78	6	40	0.0	0.0	0.0	5.24	31.85
2	5/13/78	1	6	0.0	0.0	0.0	0.0	31.85
2	5/13/78	2	59	0.003	0.0003	0.014	0.01	31.86
2	5/13/78	4	15	0.003	0.0003	0.014	0.03	31.88
2	5/13/78	5	15	0.0	0.0	0.0	0.04	31.89
2	5/27/78	16	32	0.0	0.0	0.0	0.0	31.89
2	5/27/78	16	33	0.058	0.0073	0.415	0.00	31.89
2	5/27/78	16	34	0.125	0.0280	1.581	0.02	31.91
2	5/27/78	16	35	0.192	0.0629	3.553	0.06	31.95

SITE	DATE	HOUR	MIN	STAGE M	RUNOFF RATE CMS	RUNOFF INTENSITY MMPH	STORM RUNOFF MM	ANNUAL RUNOFF MM
2	5/27/78	16	36	0.244	0.1000	5.649	0.14	32.03
2	5/27/78	16	37	0.283	0.1360	7.686	0.25	32.14
2	5/27/78	16	38	0.430	0.3222	18.212	0.47	32.35
2	5/27/78	16	39	0.451	0.3579	20.228	0.79	32.67
2	5/27/78	16	40	0.463	0.3789	21.412	1.13	33.02
2	5/27/78	16	41	0.494	0.4338	24.517	1.52	33.40
2	5/27/78	16	42	0.527	0.5001	28.262	1.96	33.84
2	5/27/78	16	43	0.549	0.5437	30.726	2.45	34.34
2	5/27/78	16	44	0.558	0.5649	31.926	2.97	34.86
2	5/27/78	16	45	0.564	0.5791	32.727	3.51	35.40
2	5/27/78	16	46	0.576	0.6074	34.327	4.07	35.96
2	5/27/78	16	47	0.570	0.5932	33.527	4.63	36.52
2	5/27/78	16	48	0.567	0.5862	33.127	5.19	37.08
2	5/27/78	16	49	0.561	0.5720	32.327	5.73	37.62
2	5/27/78	16	50	0.536	0.5186	29.310	6.25	38.14
2	5/27/78	16	51	0.521	0.4876	27.558	6.72	38.61
2	5/27/78	16	52	0.500	0.4457	25.189	7.16	39.05
2	5/27/78	16	53	0.466	0.3843	21.716	7.55	39.44
2	5/27/78	16	54	0.439	0.3375	19.076	7.89	39.78
2	5/27/78	16	55	0.421	0.3076	17.395	8.20	40.08
2	5/27/78	16	56	0.393	0.2662	15.045	8.47	40.35
2	5/27/78	16	57	0.372	0.2367	13.375	8.70	40.59
2	5/27/78	16	58	0.344	0.2025	11.442	8.91	40.80
2	5/27/78	16	59	0.320	0.1744	9.858	9.09	40.98
2	5/27/78	17	0	0.296	0.1483	8.379	9.24	41.13
2	5/27/78	17	1	0.274	0.1269	7.169	9.37	41.26
2	5/27/78	17	2	0.244	0.1000	5.649	9.48	41.36
2	5/27/78	17	3	0.229	0.0883	4.993	9.56	41.45
2	5/27/78	17	4	0.207	0.0728	4.113	9.64	41.53
2	5/27/78	17	5	0.189	0.0609	3.441	9.70	41.59
2	5/27/78	17	6	0.174	0.0519	2.933	9.76	41.64
2	5/27/78	17	7	0.162	0.0452	2.556	9.80	41.68
2	5/27/78	17	8	0.152	0.0402	2.272	9.84	41.73
2	5/27/78	17	9	0.143	0.0361	2.042	9.88	41.77
2	5/27/78	17	10	0.134	0.0321	1.812	9.91	41.80
2	5/27/78	17	11	0.125	0.0280	1.581	9.94	41.83
2	5/27/78	17	12	0.116	0.0245	1.384	9.96	41.85
2	5/27/78	17	13	0.110	0.0224	1.264	9.99	41.87
2	5/27/78	17	14	0.104	0.0202	1.144	10.01	41.89
2	5/27/78	17	15	0.098	0.0181	1.024	10.02	41.91
2	5/27/78	17	16	0.091	0.0160	0.904	10.04	41.93
2	5/27/78	17	17	0.085	0.0144	0.812	10.05	41.94
2	5/27/78	17	18	0.079	0.0127	0.720	10.07	41.95
2	5/27/78	17	19	0.076	0.0119	0.675	10.08	41.97
2	5/27/78	17	20	0.073	0.0111	0.629	10.09	41.98
2	5/27/78	17	21	0.070	0.0103	0.583	10.10	41.99
2	5/27/78	17	22	0.064	0.0087	0.491	10.11	42.00
2	5/27/78	17	23	0.061	0.0079	0.445	10.12	42.00
2	5/27/78	17	25	0.058	0.0073	0.415	10.13	42.02
2	5/27/78	17	26	0.055	0.0068	0.384	10.14	42.02
2	5/27/78	17	27	0.052	0.0063	0.384	10.14	42.03
2	5/27/78	17	28	0.049	0.0057	0.324	10.15	42.04

TABLE D1-12. CONTINUED

SITE	DATE	HOUR	MIN	STAGE M	RUNOFF RATE CMS	RUNOFF INTENSITY MMPH	STORM RUNOFF MM	ANNUAL RUNOFF MM
2	5/27/78	17	30	0.046	0.0052	0.294	10.16	42.05
2	5/27/78	17	31	0.043	0.0047	0.263	10.16	42.05
2	5/27/78	17	32	0.040	0.0041	0.233	10.17	42.06
2	5/27/78	17	33	0.037	0.0036	0.203	10.17	42.06
2	5/27/78	17	35	0.034	0.0031	0.173	10.18	42.07
2	5/27/78	17	37	0.030	0.0025	0.142	10.18	42.07
2	5/27/78	17	39	0.027	0.0023	0.128	10.19	42.08
2	5/27/78	17	43	0.024	0.0020	0.114	10.20	42.08
2	5/27/78	17	46	0.021	0.0018	0.100	10.20	42.09
2	5/27/78	17	51	0.018	0.0015	0.085	10.21	42.10
2	5/27/78	17	55	0.015	0.0013	0.071	10.21	42.10
2	5/27/78	17	57	0.012	0.0010	0.057	10.22	42.10
2	5/27/78	18	1	0.009	0.0008	0.043	10.22	42.11
2	5/27/78	18	8	0.006	0.0005	0.028	10.22	42.11
2	5/27/78	18	13	0.003	0.0003	0.014	10.23	42.11
2	5/27/78	18	18	0.0	0.0	0.0	10.23	42.11
2	5/31/78	22	18	0.0	0.0	0.0	0.0	42.11
2	5/31/78	22	19	0.043	0.0047	0.263	0.00	42.12
2	5/31/78	22	20	0.076	0.0119	0.675	0.01	42.12
2	5/31/78	22	21	0.116	0.0245	1.384	0.03	42.14
2	5/31/78	22	22	0.143	0.0361	2.042	0.06	42.17
2	5/31/78	22	23	0.158	0.0436	2.461	0.09	42.21
2	5/31/78	22	24	0.168	0.0486	2.745	0.14	42.25
2	5/31/78	22	25	0.183	0.0569	3.217	0.19	42.30
2	5/31/78	22	26	0.192	0.0629	3.553	0.24	42.36
2	5/31/78	22	27	0.198	0.0668	3.777	0.30	42.42
2	5/31/78	22	28	0.186	0.0589	3.329	0.36	42.48
2	5/31/78	22	29	0.177	0.0536	3.028	0.42	42.53
2	5/31/78	22	30	0.165	0.0469	2.650	0.46	42.58
2	5/31/78	22	31	0.149	0.0389	2.196	0.50	42.62
2	5/31/78	22	32	0.137	0.0334	1.888	0.54	42.65
2	5/31/78	22	33	0.128	0.0293	1.658	0.57	42.68
2	5/31/78	22	34	0.113	0.0234	1.324	0.59	42.71
2	5/31/78	22	35	0.104	0.0202	1.144	0.61	42.73
2	5/31/78	22	36	0.091	0.0160	0.904	0.63	42.74
2	5/31/78	22	37	0.082	0.0136	0.766	0.64	42.76
2	5/31/78	22	38	0.070	0.0103	0.583	0.65	42.77
2	5/31/78	22	39	0.064	0.0087	0.491	0.66	42.78
2	5/31/78	22	40	0.058	0.0073	0.415	0.67	42.78
2	5/31/78	22	41	0.055	0.0068	0.384	0.68	42.79
2	5/31/78	22	42	0.049	0.0057	0.324	0.68	42.80
2	5/31/78	22	43	0.046	0.0052	0.294	0.69	42.80
2	5/31/78	22	44	0.043	0.0047	0.263	0.69	42.81
2	5/31/78	22	45	0.040	0.0041	0.233	0.70	42.81
2	5/31/78	22	46	0.037	0.0036	0.203	0.70	42.81
2	5/31/78	22	47	0.030	0.0025	0.142	0.70	42.82
2	5/31/78	22	49	0.027	0.0023	0.128	0.71	42.82
2	5/31/78	22	50	0.024	0.0020	0.114	0.71	42.82
2	5/31/78	22	52	0.021	0.0018	0.100	0.71	42.83
2	5/31/78	22	54	0.018	0.0015	0.085	0.72	42.83
2	5/31/78	22	56	0.015	0.0013	0.071	0.72	42.83
2	5/31/78	22	59	0.012	0.0010	0.057	0.72	42.84
2	5/31/78	23	2	0.009	0.0008	0.043	0.73	42.84
2	5/31/78	23	5	0.006	0.0005	0.028	0.73	42.84
2	5/31/78	23	10	0.003	0.0003	0.014	0.73	42.84
2	5/31/78	23	20	0.0	0.0	0.0	0.73	42.84
2	6/15/78	1	17	0.0	0.0	0.0	0.0	42.84
2	6/15/78	1	18	0.018	0.0015	0.085	0.00	42.84
2	6/15/78	1	19	0.043	0.0047	0.263	0.00	42.85
2	6/15/78	1	20	0.064	0.0087	0.491	0.01	42.85
2	6/15/78	1	21	0.073	0.0111	0.629	0.02	42.86
2	6/15/78	1	22	0.079	0.0127	0.720	0.03	42.87
2	6/15/78	1	23	0.082	0.0136	0.766	0.04	42.89
2	6/15/78	1	31	0.079	0.0127	0.720	0.14	42.99
2	6/15/78	1	32	0.076	0.0119	0.675	0.15	43.00
2	6/15/78	1	33	0.070	0.0103	0.583	0.16	43.01
2	6/15/78	1	35	0.067	0.0095	0.537	0.18	43.03
2	6/15/78	1	36	0.064	0.0087	0.491	0.19	43.04
2	6/15/78	1	39	0.061	0.0079	0.445	0.21	43.06
2	6/15/78	1	42	0.064	0.0087	0.491	0.24	43.08
2	6/15/78	1	44	0.067	0.0095	0.537	0.26	43.10
2	6/15/78	1	45	0.079	0.0127	0.720	0.27	43.11
2	6/15/78	1	46	0.088	0.0152	0.858	0.28	43.12
2	6/15/78	1	47	0.107	0.0213	1.204	0.30	43.14
2	6/15/78	1	48	0.122	0.0266	1.504	0.32	43.16
2	6/15/78	1	49	0.134	0.0321	1.812	0.35	43.19
2	6/15/78	1	50	0.146	0.0375	2.119	0.38	43.22
2	6/15/78	1	51	0.168	0.0486	2.745	0.42	43.26
2	6/15/78	1	52	0.180	0.0552	3.122	0.47	43.31
2	6/15/78	1	53	0.198	0.0668	3.777	0.53	43.37
2	6/15/78	1	54	0.207	0.0728	4.113	0.59	43.44
2	6/15/78	1	55	0.223	0.0837	4.731	0.67	43.51
2	6/15/78	1	56	0.229	0.0883	4.993	0.75	43.59
2	6/15/78	1	58	0.232	0.0907	5.124	0.92	43.76
2	6/15/78	2	0	0.229	0.0883	4.993	1.08	43.93
2	6/15/78	2	1	0.226	0.0860	4.862	1.17	44.01
2	6/15/78	2	2	0.219	0.0814	4.599	1.24	44.09
2	6/15/78	2	3	0.210	0.0748	4.225	1.32	44.16
2	6/15/78	2	4	0.204	0.0708	4.001	1.39	44.23
2	6/15/78	2	5	0.198	0.0668	3.777	1.45	44.30
2	6/15/78	2	6	0.195	0.0648	3.665	1.51	44.36
2	6/15/78	2	7	0.192	0.0629	3.553	1.57	44.42
2	6/15/78	2	8	0.186	0.0589	3.329	1.63	44.47
2	6/15/78	2	9	0.183	0.0569	3.217	1.69	44.53
2	6/15/78	2	10	0.177	0.0536	3.028	1.74	44.58
2	6/15/78	2	11	0.174	0.0519	2.933	1.79	44.63
2	6/15/78	2	12	0.168	0.0486	2.745	1.83	44.68
2	6/15/78	2	13	0.165	0.0469	2.650	1.88	44.72
2	6/15/78	2	14	0.158	0.0436	2.461	1.92	44.77
2	6/15/78	2	15	0.149	0.0389	2.196	1.96	44.80

TABLE D1-12. CONTINUED

SITE	DATE	HOUR	MIN	STAGE M	RUNOFF RATE CMS	RUNOFF INTENSITY MMPH	STORM RUNOFF MM	ANNUAL RUNOFF MM
2	6/15/78	2	16	0.143	0.0361	2.042	2.00	44.84
2	6/15/78	2	17	0.137	0.0334	1.888	2.03	44.87
2	6/15/78	2	18	0.131	0.0307	1.735	2.06	44.90
2	6/15/78	2	19	0.122	0.0266	1.504	2.09	44.93
2	6/15/78	2	20	0.119	0.0256	1.444	2.11	44.95
2	6/15/78	2	21	0.113	0.0234	1.324	2.13	44.98
2	6/15/78	2	22	0.107	0.0213	1.204	2.15	45.00
2	6/15/78	2	23	0.101	0.0192	1.084	2.17	45.02
2	6/15/78	2	24	0.098	0.0181	1.024	2.19	45.04
2	6/15/78	2	25	0.091	0.0160	0.904	2.21	45.05
2	6/15/78	2	26	0.085	0.0144	0.812	2.22	45.07
2	6/15/78	2	27	0.082	0.0136	0.766	2.24	45.08
2	6/15/78	2	28	0.079	0.0127	0.720	2.25	45.09
2	6/15/78	2	29	0.073	0.0111	0.629	2.26	45.10
2	6/15/78	2	30	0.070	0.0103	0.583	2.27	45.11
2	6/15/78	2	31	0.064	0.0087	0.491	2.28	45.12
2	6/15/78	2	32	0.061	0.0079	0.445	2.29	45.13
2	6/15/78	2	33	0.058	0.0073	0.415	2.29	45.14
2	6/15/78	2	35	0.055	0.0068	0.384	2.31	45.15
2	6/15/78	2	37	0.052	0.0063	0.354	2.32	45.16
2	6/15/78	2	40	0.049	0.0057	0.324	2.34	45.18
2	6/15/78	2	42	0.046	0.0052	0.294	2.35	45.19
2	6/15/78	2	44	0.043	0.0047	0.263	2.35	45.20
2	6/15/78	2	45	0.040	0.0041	0.233	2.36	45.20
2	6/15/78	2	46	0.037	0.0036	0.203	2.36	45.21
2	6/15/78	2	47	0.034	0.0031	0.173	2.37	45.21
2	6/15/78	2	48	0.030	0.0025	0.142	2.37	45.21
2	6/15/78	2	50	0.027	0.0023	0.128	2.37	45.22
2	6/15/78	2	52	0.024	0.0020	0.114	2.38	45.22
2	6/15/78	2	55	0.021	0.0018	0.100	2.38	45.23
2	6/15/78	2	58	0.018	0.0015	0.085	2.39	45.23
2	6/15/78	3	2	0.015	0.0013	0.071	2.39	45.24
2	6/15/78	3	5	0.012	0.0010	0.057	2.40	45.24
2	6/15/78	3	9	0.009	0.0008	0.043	2.40	45.24
2	6/15/78	3	14	0.006	0.0005	0.028	2.40	45.25
2	6/15/78	3	20	0.003	0.0003	0.014	2.40	45.25
2	6/15/78	3	40	0.0	0.0	0.0	2.41	45.25
2	6/20/78	0	54	0.0	0.0	0.0	0.0	45.25
2	6/20/78	0	55	0.037	0.0036	0.203	0.00	45.25
2	6/20/78	0	56	0.064	0.0087	0.491	0.01	45.26
2	6/20/78	0	57	0.082	0.0136	0.766	0.02	45.27
2	6/20/78	0	58	0.101	0.0192	1.084	0.03	45.28
2	6/20/78	0	59	0.116	0.0245	1.384	0.05	45.30
2	6/20/78	1	0	0.128	0.0293	1.658	0.08	45.33
2	6/20/78	1	1	0.137	0.0334	1.888	0.11	45.36
2	6/20/78	1	2	0.143	0.0361	2.042	0.14	45.39
2	6/20/78	1	3	0.152	0.0402	2.272	0.18	45.43
2	6/20/78	1	4	0.155	0.0419	2.367	0.22	45.47
2	6/20/78	1	6	0.158	0.0436	2.461	0.30	45.55
2	6/20/78	1	8	0.155	0.0419	2.367	0.38	45.63
2	6/20/78	1	9	0.152	0.0402	2.272	0.42	45.67
2	6/20/78	1	10	0.146	0.0375	2.119	0.45	45.70
2	6/20/78	1	11	0.143	0.0361	2.042	0.49	45.74
2	6/20/78	1	12	0.134	0.0321	1.812	0.52	45.77
2	6/20/78	1	13	0.128	0.0293	1.658	0.55	45.80
2	6/20/78	1	14	0.122	0.0266	1.504	0.57	45.82
2	6/20/78	1	15	0.116	0.0245	1.384	0.60	45.85
2	6/20/78	1	16	0.113	0.0234	1.324	0.62	45.87
2	6/20/78	1	17	0.107	0.0213	1.204	0.64	45.89
2	6/20/78	1	18	0.104	0.0202	1.144	0.66	45.91
2	6/20/78	1	19	0.098	0.0181	1.024	0.68	45.93
2	6/20/78	1	20	0.091	0.0160	0.904	0.70	45.95
2	6/20/78	1	21	0.094	0.0171	0.964	0.71	45.96
2	6/20/78	1	22	0.098	0.0181	1.024	0.73	45.98
2	6/20/78	1	23	0.104	0.0202	1.144	0.75	46.00
2	6/20/78	1	24	0.113	0.0234	1.324	0.77	46.02
2	6/20/78	1	25	0.122	0.0266	1.504	0.79	46.04
2	6/20/78	1	26	0.125	0.0280	1.581	0.82	46.07
2	6/20/78	1	27	0.128	0.0293	1.658	0.84	46.09
2	6/20/78	1	29	0.131	0.0307	1.735	0.90	46.15
2	6/20/78	1	32	0.128	0.0293	1.658	0.98	46.23
2	6/20/78	1	33	0.125	0.0280	1.581	1.01	46.26
2	6/20/78	1	34	0.122	0.0266	1.504	1.04	46.29
2	6/20/78	1	35	0.116	0.0245	1.384	1.06	46.31
2	6/20/78	1	36	0.113	0.0234	1.324	1.08	46.33
2	6/20/78	1	37	0.110	0.0224	1.264	1.11	46.35
2	6/20/78	1	38	0.107	0.0213	1.204	1.13	46.38
2	6/20/78	1	39	0.101	0.0192	1.084	1.14	46.39
2	6/20/78	1	40	0.094	0.0171	0.964	1.16	46.41
2	6/20/78	1	41	0.088	0.0152	0.858	1.18	46.43
2	6/20/78	1	42	0.082	0.0136	0.766	1.19	46.44
2	6/20/78	1	43	0.079	0.0127	0.720	1.20	46.45
2	6/20/78	1	44	0.076	0.0119	0.675	1.21	46.46
2	6/20/78	1	45	0.070	0.0103	0.583	1.23	46.47
2	6/20/78	1	46	0.067	0.0095	0.537	1.23	46.48
2	6/20/78	1	47	0.064	0.0087	0.491	1.24	46.49
2	6/20/78	1	48	0.061	0.0079	0.445	1.25	46.50
2	6/20/78	1	49	0.058	0.0073	0.415	1.26	46.51
2	6/20/78	1	51	0.055	0.0068	0.384	1.27	46.52
2	6/20/78	1	54	0.052	0.0063	0.354	1.29	46.54
2	6/20/78	1	58	0.049	0.0057	0.324	1.31	46.56
2	6/20/78	2	2	0.052	0.0063	0.354	1.33	46.58
2	6/20/78	2	4	0.055	0.0068	0.384	1.35	46.60
2	6/20/78	2	5	0.061	0.0079	0.445	1.35	46.60
2	6/20/78	2	6	0.070	0.0103	0.583	1.36	46.61
2	6/20/78	2	7	0.079	0.0127	0.720	1.37	46.62
2	6/20/78	2	8	0.085	0.0144	0.812	1.39	46.64
2	6/20/78	2	9	0.088	0.0152	0.858	1.40	46.65
2	6/20/78	2	10	0.091	0.0160	0.904	1.41	46.66
2	6/20/78	2	14	0.094	0.0171	0.964	1.48	46.73
2	6/20/78	2	17	0.091	0.0160	0.904	1.52	46.77
2	6/20/78	2	19	0.088	0.0152	0.858	1.55	46.80

TABLE D1-12. CONCLUDED

SITE	DATE	HOUR	MIN	STAGE M	RUNOFF RATE CMS	RUNOFF INTENSITY MMPH	STORM RUNOFF MM	ANNUAL RUNOFF MM
2	6/20/78	2	20	0.085	0.0144	0.812	1.57	46.82
2	6/20/78	2	21	0.079	0.0127	0.720	1.58	46.83
2	6/20/78	2	22	0.076	0.0119	0.675	1.59	46.84
2	6/20/78	2	23	0.070	0.0103	0.583	1.60	46.85
2	6/20/78	2	24	0.067	0.0095	0.537	1.61	46.86
2	6/20/78	2	25	0.061	0.0079	0.445	1.62	46.87
2	6/20/78	2	26	0.058	0.0073	0.415	1.63	46.88
2	6/20/78	2	27	0.055	0.0068	0.384	1.63	46.88
2	6/20/78	2	29	0.052	0.0063	0.354	1.65	46.89
2	6/20/78	2	32	0.049	0.0057	0.324	1.66	46.91
2	6/20/78	2	35	0.052	0.0063	0.354	1.68	46.93
2	6/20/78	2	37	0.055	0.0068	0.384	1.69	46.94
2	6/20/78	2	47	0.055	0.0068	0.384	1.76	47.01
2	6/20/78	2	51	0.052	0.0063	0.354	1.78	47.03
2	6/20/78	2	53	0.049	0.0057	0.324	1.79	47.04
2	6/20/78	2	54	0.046	0.0052	0.294	1.80	47.05
2	6/20/78	2	55	0.043	0.0047	0.263	1.80	47.05
2	6/20/78	2	57	0.040	0.0041	0.233	1.81	47.06
2	6/20/78	2	58	0.037	0.0036	0.203	1.81	47.06
2	6/20/78	2	59	0.034	0.0031	0.173	1.82	47.07
2	6/20/78	3	0	0.030	0.0025	0.142	1.82	47.07
2	6/20/78	3	1	0.027	0.0023	0.128	1.82	47.07
2	6/20/78	3	3	0.024	0.0020	0.114	1.83	47.07
2	6/20/78	3	6	0.021	0.0018	0.100	1.83	47.08
2	6/20/78	3	8	0.018	0.0015	0.085	1.83	47.08
2	6/20/78	3	12	0.015	0.0013	0.071	1.84	47.09
2	6/20/78	3	16	0.012	0.0010	0.057	1.84	47.09
2	6/20/78	3	22	0.009	0.0008	0.043	1.85	47.10
2	6/20/78	3	28	0.006	0.0005	0.028	1.85	47.10
2	6/20/78	3	34	0.003	0.0003	0.014	1.85	47.10
2	6/20/78	3	40	0.0	0.0	0.0	1.86	47.10
2	9/13/78	22	58	0.0	0.0	0.0	0.0	47.10
2	9/13/78	22	59	0.003	0.0003	0.014	0.00	47.10
2	9/13/78	23	0	0.009	0.0008	0.043	0.00	47.10
2	9/13/78	23	1	0.015	0.0013	0.071	0.00	47.11
2	9/13/78	23	3	0.018	0.0015	0.085	0.00	47.11
2	9/13/78	23	6	0.021	0.0018	0.100	0.01	47.11
2	9/13/78	23	12	0.018	0.0015	0.085	0.02	47.12
2	9/13/78	23	17	0.015	0.0013	0.071	0.02	47.13
2	9/13/78	23	20	0.012	0.0010	0.057	0.03	47.13
2	9/13/78	23	24	0.009	0.0008	0.043	0.03	47.14
2	9/13/78	23	28	0.006	0.0005	0.028	0.03	47.14
2	9/13/78	23	36	0.003	0.0003	0.014	0.04	47.14
2	9/13/78	23	48	0.0	0.0	0.0	0.04	47.14
2	9/19/78	19	34	0.0	0.0	0.0	0.0	47.14
2	9/19/78	19	35	0.012	0.0010	0.057	0.00	47.14
2	9/19/78	19	39	0.015	0.0013	0.071	0.00	47.15
2	9/19/78	19	44	0.012	0.0010	0.057	0.01	47.15
2	9/19/78	19	47	0.009	0.0008	0.043	0.01	47.15
2	9/19/78	19	50	0.006	0.0005	0.028	0.01	47.16
2	9/19/78	19	55	0.003	0.0003	0.014	0.02	47.16
2	9/19/78	20	2	0.0	0.0	0.0	0.02	47.16
2	9/20/78	9	58	0.0	0.0	0.0	0.0	47.16
2	9/20/78	9	59	0.006	0.0005	0.028	0.00	47.16
2	9/20/78	10	0	0.009	0.0008	0.043	0.00	47.16
2	9/20/78	10	2	0.012	0.0010	0.057	0.00	47.16
2	9/20/78	10	4	0.015	0.0013	0.071	0.00	47.16
2	9/20/78	10	9	0.018	0.0015	0.085	0.01	47.17
2	9/20/78	10	19	0.015	0.0013	0.071	0.02	47.18
2	9/20/78	10	23	0.012	0.0010	0.057	0.03	47.19
2	9/20/78	10	28	0.009	0.0008	0.043	0.03	47.19
2	9/20/78	10	35	0.006	0.0005	0.028	0.04	47.20
2	9/20/78	10	47	0.003	0.0003	0.014	0.04	47.20
2	9/20/78	11	6	0.0	0.0	0.0	0.04	47.20

TABLE D1-13. FOUR MILE CREEK WATERSHED RUNOFF DATA FOR 1978 SITE 3

SITE	DATE	HOUR	MIN	STAGE M	RUNOFF RATE CMS	RUNOFF INTENSITY MMPH	STORM RUNOFF MM	ANNUAL RUNOFF MM
3	3/19/78	10	0	0.0	0.0	0.0	0.0	0.0
3	3/19/78	10	20	0.003	0.0003	0.015	0.00	0.00
3	3/19/78	10	40	0.006	0.0005	0.031	0.01	0.01
3	3/19/78	10	56	0.009	0.0008	0.046	0.02	0.02
3	3/19/78	11	16	0.012	0.0010	0.061	0.04	0.04
3	3/19/78	11	32	0.015	0.0013	0.076	0.06	0.06
3	3/19/78	11	45	0.018	0.0015	0.092	0.07	0.07
3	3/19/78	12	3	0.021	0.0018	0.107	0.10	0.10
3	3/19/78	12	18	0.024	0.0020	0.122	0.13	0.13
3	3/19/78	12	37	0.027	0.0023	0.138	0.17	0.17
3	3/19/78	12	54	0.030	0.0025	0.153	0.22	0.22
3	3/19/78	13	11	0.034	0.0031	0.185	0.26	0.26
3	3/19/78	13	27	0.037	0.0036	0.218	0.32	0.32
3	3/19/78	13	44	0.040	0.0041	0.250	0.38	0.38
3	3/19/78	14	0	0.043	0.0047	0.283	0.45	0.45
3	3/19/78	14	17	0.046	0.0052	0.315	0.54	0.54
3	3/19/78	14	32	0.049	0.0057	0.348	0.62	0.62
3	3/19/78	14	49	0.052	0.0063	0.380	0.73	0.73
3	3/19/78	15	14	0.055	0.0068	0.413	0.89	0.89
3	3/19/78	15	40	0.052	0.0063	0.380	1.06	1.06
3	3/19/78	15	55	0.049	0.0057	0.348	1.15	1.15
3	3/19/78	16	8	0.046	0.0052	0.315	1.23	1.23
3	3/19/78	16	26	0.043	0.0047	0.283	1.32	1.32
3	3/19/78	16	27	0.040	0.0041	0.250	1.32	1.32
3	3/19/78	16	35	0.037	0.0036	0.218	1.35	1.35
3	3/19/78	16	45	0.034	0.0031	0.185	1.38	1.38
3	3/19/78	17	1	0.030	0.0025	0.153	1.43	1.43
3	3/19/78	17	15	0.027	0.0023	0.138	1.46	1.46
3	3/19/78	17	40	0.024	0.0020	0.122	1.52	1.52
3	3/19/78	18	4	0.021	0.0018	0.107	1.56	1.56
3	3/19/78	18	27	0.018	0.0015	0.092	1.60	1.60
3	3/20/78	10	36	0.015	0.0013	0.076	2.96	2.96
3	3/20/78	11	21	0.012	0.0010	0.061	3.01	3.01
3	3/20/78	11	50	0.009	0.0008	0.046	3.04	3.04
3	3/20/78	12	2	0.006	0.0005	0.031	3.05	3.05
3	3/20/78	12	9	0.003	0.0003	0.015	3.05	3.05
3	3/20/78	13	57	0.003	0.0003	0.015	3.08	3.08
3	3/20/78	14	3	0.006	0.0005	0.031	3.08	3.08
3	3/20/78	14	10	0.009	0.0008	0.046	3.08	3.08
3	3/20/78	14	50	0.012	0.0010	0.061	3.12	3.12
3	3/20/78	16	9	0.012	0.0010	0.061	3.20	3.20
3	3/20/78	17	41	0.009	0.0008	0.046	3.28	3.28
3	3/20/78	18	37	0.006	0.0005	0.031	3.32	3.32
3	3/20/78	20	20	0.003	0.0003	0.015	3.36	3.36
3	3/22/78	14	4	0.003	0.0003	0.015	4.00	4.00
3	3/22/78	14	15	0.006	0.0005	0.031	4.00	4.00
3	3/22/78	14	37	0.009	0.0008	0.046	4.01	4.01
3	3/22/78	14	40	0.012	0.0010	0.061	4.02	4.02
3	3/22/78	16	10	0.012	0.0010	0.061	4.11	4.11
3	3/22/78	18	51	0.009	0.0008	0.046	4.25	4.25
3	3/22/78	19	30	0.006	0.0005	0.031	4.28	4.28
3	3/22/78	21	16	0.003	0.0003	0.015	4.32	4.32
3	3/22/78	22	20	0.0	0.0	0.0	4.33	4.33
3	4/ 5/78	18	18	0.0	0.0	0.0	0.0	4.33
3	4/ 5/78	18	19	0.003	0.0003	0.015	0.00	4.33
3	4/ 5/78	18	21	0.006	0.0005	0.031	0.00	4.33
3	4/ 5/78	18	27	0.009	0.0008	0.046	0.00	4.33
3	4/ 5/78	18	33	0.012	0.0010	0.061	0.01	4.34
3	4/ 5/78	18	47	0.012	0.0010	0.061	0.02	4.35
3	4/ 5/78	18	56	0.009	0.0008	0.046	0.03	4.36
3	4/ 5/78	19	6	0.006	0.0005	0.031	0.04	4.36
3	4/ 5/78	19	22	0.003	0.0003	0.015	0.04	4.37
3	4/ 5/78	19	47	0.0	0.0	0.0	0.05	4.37
3	4/ 9/78	18	48	0.0	0.0	0.0	0.0	4.37
3	4/ 9/78	18	50	0.003	0.0003	0.015	0.00	4.37
3	4/ 9/78	18	54	0.006	0.0005	0.031	0.00	4.38
3	4/ 9/78	19	6	0.009	0.0008	0.046	0.01	4.38
3	4/ 9/78	19	16	0.006	0.0005	0.031	0.02	4.39
3	4/ 9/78	19	51	0.003	0.0003	0.015	0.03	4.40
3	4/ 9/78	20	12	0.0	0.0	0.0	0.03	4.41
3	4/17/78	14	32	0.0	0.0	0.0	0.0	4.41
3	4/17/78	14	33	0.003	0.0003	0.015	0.00	4.41
3	4/17/78	14	45	0.006	0.0005	0.031	0.00	4.41
3	4/17/78	15	41	0.009	0.0008	0.046	0.04	4.45
3	4/17/78	16	2	0.012	0.0010	0.061	0.06	4.46
3	4/17/78	16	30	0.009	0.0008	0.046	0.08	4.49
3	4/17/78	17	4	0.006	0.0005	0.031	0.11	4.51
3	4/17/78	17	53	0.003	0.0003	0.015	0.12	4.53
3	4/17/78	19	6	0.0	0.0	0.0	0.13	4.54
3	4/17/78	19	32	0.0	0.0	0.0	0.13	4.54
3	4/17/78	19	49	0.003	0.0003	0.015	0.14	4.54
3	4/17/78	20	1	0.006	0.0005	0.031	0.14	4.55
3	4/17/78	20	28	0.003	0.0003	0.015	0.15	4.56
3	4/17/78	21	4	0.0	0.0	0.0	0.16	4.56
3	4/17/78	22	44	0.0	0.0	0.0	0.16	4.56
3	4/17/78	22	54	0.003	0.0003	0.015	0.16	4.56
3	4/17/78	22	56	0.006	0.0005	0.031	0.16	4.56
3	4/17/78	23	3	0.009	0.0008	0.046	0.16	4.57
3	4/17/78	23	9	0.012	0.0010	0.061	0.17	4.57
3	4/17/78	23	13	0.015	0.0013	0.076	0.17	4.58
3	4/17/78	23	16	0.018	0.0015	0.092	0.18	4.58
3	4/17/78	23	24	0.021	0.0018	0.107	0.19	4.59
3	4/17/78	23	27	0.024	0.0020	0.122	0.20	4.60
3	4/17/78	23	28	0.027	0.0023	0.138	0.20	4.60
3	4/17/78	23	30	0.030	0.0025	0.153	0.20	4.61
3	4/17/78	23	33	0.034	0.0031	0.185	0.21	4.62
3	4/17/78	23	34	0.040	0.0041	0.250	0.21	4.62
3	4/17/78	23	35	0.043	0.0047	0.283	0.22	4.62

TABLE D1-13. CONCLUDED

SITE	DATE	HOUR	MIN	STAGE M	RUNOFF RATE CMS	RUNOFF INTENSITY MMPH	STORM RUNOFF MM	ANNUAL RUNOFF MM
3	4/17/78	23	36	0.049	0.0057	0.348	0.22	4.63
3	4/17/78	23	37	0.052	0.0063	0.380	0.23	4.64
3	4/17/78	23	43	0.055	0.0068	0.413	0.27	4.67
3	4/17/78	23	47	0.052	0.0063	0.380	0.30	4.70
3	4/17/78	23	55	0.049	0.0057	0.348	0.34	4.75
3	4/18/78	0	2	0.046	0.0052	0.315	0.38	4.79
3	4/18/78	0	12	0.043	0.0047	0.283	0.43	4.84
3	4/18/78	0	18	0.040	0.0041	0.250	0.46	4.87
3	4/18/78	0	25	0.037	0.0036	0.218	0.49	4.89
3	4/18/78	0	36	0.034	0.0031	0.185	0.52	4.93
3	4/18/78	0	39	0.030	0.0025	0.153	0.53	4.94
3	4/18/78	0	44	0.027	0.0023	0.138	0.54	4.95
3	4/18/78	0	51	0.024	0.0020	0.122	0.56	4.97
3	4/18/78	0	58	0.021	0.0018	0.107	0.57	4.98
3	4/18/78	1	4	0.018	0.0015	0.092	0.58	4.99
3	4/18/78	1	14	0.015	0.0013	0.076	0.60	5.00
3	4/18/78	1	26	0.012	0.0010	0.061	0.61	5.02
3	4/18/78	1	48	0.009	0.0008	0.046	0.63	5.04
3	4/18/78	2	16	0.006	0.0005	0.031	0.65	5.05
3	4/18/78	3	10	0.003	0.0003	0.015	0.67	5.07
3	4/18/78	4	20	0.006	0.0005	0.031	0.70	5.10
3	4/18/78	5	3	0.009	0.0008	0.046	0.72	5.13
3	4/18/78	6	44	0.006	0.0005	0.031	0.79	5.19
3	4/18/78	7	58	0.003	0.0003	0.015	0.82	5.22
3	4/18/78	11	3	0.003	0.0003	0.015	0.86	5.27
3	4/18/78	15	15	0.0	0.0	0.0	0.90	5.30
3	5/13/78	2	0	0.0	0.0	0.0	0.0	5.30
3	5/13/78	2	6	0.003	0.0003	0.015	0.00	5.30
3	5/13/78	2	16	0.006	0.0005	0.031	0.00	5.31
3	5/13/78	2	54	0.006	0.0005	0.031	0.02	5.32
3	5/13/78	3	28	0.003	0.0003	0.015	0.04	5.34
3	5/13/78	4	54	0.003	0.0003	0.015	0.06	5.36
3	5/13/78	6	40	0.0	0.0	0.0	0.07	5.37
3	8/26/78	20	38	0.0	0.0	0.0	0.0	5.37
3	8/26/78	20	41	0.003	0.0003	0.015	0.00	5.37
3	8/26/78	20	57	0.006	0.0005	0.031	0.01	5.38
3	8/26/78	21	3	0.009	0.0008	0.046	0.01	5.38
3	8/26/78	21	15	0.009	0.0008	0.046	0.02	5.39
3	8/26/78	21	16	0.024	0.0020	0.122	0.02	5.39
3	8/26/78	21	17	0.043	0.0047	0.283	0.02	5.40
3	8/26/78	21	18	0.058	0.0073	0.445	0.03	5.40
3	8/26/78	21	19	0.073	0.0111	0.675	0.04	5.41
3	8/26/78	21	20	0.088	0.0152	0.922	0.05	5.43
3	8/26/78	21	21	0.098	0.0181	1.100	0.07	5.44
3	8/26/78	21	22	0.104	0.0202	1.229	0.09	5.46
3	8/26/78	21	23	0.107	0.0213	1.294	0.11	5.48
3	8/26/78	21	24	0.110	0.0224	1.358	0.13	5.51
3	8/26/78	21	26	0.107	0.0213	1.294	0.18	5.55
3	8/26/78	21	27	0.101	0.0192	1.165	0.20	5.57
3	8/26/78	21	28	0.098	0.0181	1.100	0.22	5.59
3	8/26/78	21	29	0.088	0.0152	0.922	0.23	5.61
3	8/26/78	21	30	0.082	0.0136	0.823	0.25	5.62
3	8/26/78	21	32	0.079	0.0127	0.774	0.27	5.65
3	8/26/78	21	33	0.076	0.0119	0.725	0.29	5.66
3	8/26/78	21	35	0.073	0.0111	0.675	0.31	5.68
3	8/26/78	21	36	0.043	0.0047	0.283	0.32	5.69
3	8/26/78	21	37	0.034	0.0031	0.185	0.32	5.69
3	8/26/78	21	38	0.030	0.0025	0.153	0.32	5.70
3	8/26/78	21	39	0.024	0.0020	0.122	0.33	5.70
3	8/26/78	21	40	0.021	0.0018	0.107	0.33	5.70
3	8/26/78	21	41	0.018	0.0015	0.092	0.33	5.70
3	8/26/78	21	42	0.015	0.0013	0.076	0.33	5.70
3	8/26/78	21	44	0.012	0.0010	0.061	0.33	5.71
3	8/26/78	21	46	0.009	0.0008	0.046	0.34	5.71
3	8/26/78	21	51	0.006	0.0005	0.031	0.34	5.71
3	8/27/78	1	34	0.003	0.0003	0.015	0.42	5.80
3	8/27/78	2	0	0.0	0.0	0.0	0.43	5.80
3	9/13/78	23	2	0.0	0.0	0.0	0.0	5.80
3	9/13/78	23	3	0.003	0.0003	0.015	0.00	5.80
3	9/13/78	23	4	0.012	0.0010	0.061	0.00	5.80
3	9/13/78	23	5	0.018	0.0015	0.092	0.00	5.80
3	9/13/78	23	6	0.024	0.0020	0.122	0.00	5.80
3	9/13/78	23	7	0.030	0.0025	0.153	0.01	5.81
3	9/13/78	23	12	0.030	0.0025	0.153	0.02	5.82
3	9/13/78	23	14	0.027	0.0023	0.138	0.02	5.82
3	9/13/78	23	15	0.024	0.0020	0.122	0.03	5.83
3	9/13/78	23	16	0.021	0.0018	0.107	0.03	5.83
3	9/13/78	23	17	0.018	0.0015	0.092	0.03	5.83
3	9/13/78	23	18	0.015	0.0013	0.076	0.03	5.83
3	9/13/78	23	20	0.012	0.0010	0.061	0.03	5.83
3	9/13/78	23	22	0.009	0.0008	0.046	0.03	5.84
3	9/13/78	23	24	0.006	0.0005	0.031	0.04	5.84
3	9/13/78	23	30	0.003	0.0003	0.015	0.04	5.84
3	9/13/78	23	34	0.0	0.0	0.0	0.04	5.84

TABLE D1-14. FOUR MILE CREEK WATERSHED RUNOFF DATA FOR 1978 SITE 7

SITE	DATE	HOUR	MIN	STAGE M	RUNOFF RATE CMS	RUNOFF INTENSITY MMPH	STORM RUNOFF MM	ANNUAL RUNOFF MM
7	3/19/78	12	0	0.0	0.0	0.0	0.0	0.0
7	3/19/78	12	17	0.012	0.0227	0.029	0.00	0.00
7	3/19/78	12	31	0.024	0.0453	0.057	0.01	0.01
7	3/19/78	12	45	0.037	0.0680	0.086	0.03	0.03
7	3/19/78	13	0	0.049	0.0906	0.115	0.06	0.06
7	3/19/78	13	14	0.061	0.1133	0.144	0.09	0.09
7	3/19/78	13	29	0.073	0.1359	0.172	0.13	0.13
7	3/19/78	13	43	0.085	0.1586	0.201	0.17	0.17
7	3/19/78	13	57	0.098	0.1812	0.230	0.22	0.22
7	3/19/78	14	12	0.110	0.2039	0.258	0.28	0.28
7	3/19/78	14	25	0.122	0.2265	0.287	0.34	0.34
7	3/19/78	14	37	0.134	0.2492	0.316	0.40	0.40
7	3/19/78	14	49	0.146	0.2718	0.345	0.47	0.47
7	3/19/78	15	1	0.158	0.2990	0.379	0.54	0.54
7	3/19/78	15	2	0.162	0.3070	0.389	0.54	0.54
7	3/19/78	15	20	0.174	0.3387	0.429	0.67	0.67
7	3/19/78	15	40	0.186	0.3704	0.470	0.82	0.82
7	3/19/78	15	58	0.198	0.4021	0.510	0.96	0.96
7	3/19/78	16	16	0.210	0.4338	0.550	1.12	1.12
7	3/19/78	16	34	0.223	0.4655	0.590	1.29	1.29
7	3/19/78	16	50	0.235	0.4972	0.630	1.46	1.46
7	3/19/78	17	9	0.247	0.5290	0.671	1.66	1.66
7	3/19/78	17	26	0.259	0.5607	0.711	1.86	1.86
7	3/19/78	17	43	0.271	0.5924	0.751	2.07	2.07
7	3/19/78	17	59	0.283	0.6241	0.791	2.27	2.27
7	3/19/78	18	9	0.290	0.6400	0.811	2.40	2.40
7	3/19/78	18	30	0.277	0.6082	0.771	2.68	2.68
7	3/19/78	18	37	0.265	0.5765	0.731	2.77	2.77
7	3/19/78	18	43	0.253	0.5448	0.691	2.84	2.84
7	3/19/78	18	49	0.247	0.5290	0.671	2.91	2.91
7	3/19/78	18	53	0.238	0.5052	0.640	2.95	2.95
7	3/19/78	18	57	0.226	0.4735	0.600	2.99	2.99
7	3/19/78	19	2	0.216	0.4497	0.570	3.04	3.04
7	3/19/78	19	11	0.204	0.4180	0.530	3.12	3.12
7	3/19/78	19	20	0.195	0.3942	0.500	3.20	3.20
7	3/19/78	19	28	0.189	0.3783	0.480	3.27	3.27
7	3/19/78	19	32	0.186	0.3704	0.470	3.30	3.30
7	3/19/78	19	40	0.183	0.3625	0.459	3.36	3.36
7	3/19/78	19	48	0.180	0.3545	0.449	3.42	3.42
7	3/19/78	19	58	0.177	0.3466	0.439	3.50	3.50
7	3/19/78	20	10	0.174	0.3387	0.429	3.58	3.58
7	3/19/78	20	22	0.171	0.3307	0.419	3.67	3.67
7	3/19/78	20	32	0.168	0.3228	0.409	3.74	3.74
7	3/19/78	20	42	0.165	0.3149	0.399	3.80	3.80
7	3/19/78	20	52	0.162	0.3070	0.389	3.87	3.87
7	3/19/78	21	2	0.158	0.2990	0.379	3.93	3.93
7	3/19/78	21	10	0.155	0.2911	0.369	3.98	3.98
7	3/19/78	21	28	0.152	0.2832	0.359	4.09	4.09
7	3/19/78	21	50	0.149	0.2775	0.352	4.22	4.22
7	3/19/78	22	8	0.146	0.2718	0.345	4.33	4.33
7	3/19/78	22	29	0.143	0.2662	0.337	4.45	4.45
7	3/19/78	23	0	0.140	0.2605	0.330	4.62	4.62
7	3/19/78	23	32	0.137	0.2549	0.323	4.79	4.79
7	3/19/78	24	0	0.137	0.2549	0.323	4.94	4.94
7	3/20/78	2	33	0.134	0.2492	0.316	0.81	5.76
7	3/20/78	4	34	0.131	0.2435	0.309	1.44	6.39
7	3/20/78	6	27	0.128	0.2379	0.302	2.02	6.96
7	3/20/78	7	44	0.125	0.2322	0.294	2.40	7.34
7	3/20/78	8	26	0.125	0.2322	0.294	2.61	7.55
7	3/20/78	8	30	0.128	0.2379	0.302	2.63	7.57
7	3/20/78	8	32	0.131	0.2435	0.309	2.64	7.58
7	3/20/78	8	36	0.137	0.2549	0.323	2.66	7.60
7	3/20/78	8	40	0.140	0.2605	0.330	2.68	7.62
7	3/20/78	8	48	0.146	0.2718	0.345	2.73	7.67
7	3/20/78	8	51	0.149	0.2775	0.352	2.74	7.69
7	3/20/78	8	57	0.152	0.2832	0.359	2.78	7.72
7	3/20/78	9	0	0.155	0.2911	0.369	2.80	7.74
7	3/20/78	9	5	0.158	0.2990	0.379	2.83	7.77
7	3/20/78	9	11	0.162	0.3070	0.389	2.87	7.81
7	3/20/78	9	20	0.165	0.3149	0.399	2.93	7.87
7	3/20/78	9	24	0.168	0.3228	0.409	2.95	7.90
7	3/20/78	9	31	0.168	0.3228	0.409	3.00	7.94
7	3/20/78	9	35	0.165	0.3149	0.399	3.03	7.97
7	3/20/78	9	38	0.162	0.3070	0.389	3.05	7.99
7	3/20/78	9	42	0.162	0.3070	0.389	3.07	8.02
7	3/20/78	9	44	0.165	0.3149	0.399	3.09	8.03
7	3/20/78	9	54	0.165	0.3149	0.399	3.15	8.10
7	3/20/78	9	56	0.162	0.3070	0.389	3.17	8.11
7	3/20/78	11	0	0.162	0.3070	0.389	3.58	8.52
7	3/20/78	11	5	0.165	0.3149	0.399	3.61	8.56
7	3/20/78	11	10	0.168	0.3228	0.409	3.65	8.59
7	3/20/78	11	15	0.171	0.3307	0.419	3.68	8.62
7	3/20/78	11	22	0.174	0.3387	0.429	3.73	8.67
7	3/20/78	12	0	0.174	0.3387	0.429	4.00	8.95
7	3/20/78	12	20	0.177	0.3466	0.439	4.15	9.09
7	3/20/78	12	27	0.180	0.3545	0.449	4.20	9.14
7	3/20/78	12	33	0.183	0.3625	0.459	4.24	9.19
7	3/20/78	12	38	0.186	0.3704	0.470	4.28	9.23
7	3/20/78	12	44	0.192	0.3862	0.490	4.33	9.27
7	3/20/78	12	52	0.198	0.4021	0.510	4.40	9.34
7	3/20/78	12	57	0.204	0.4180	0.530	4.44	9.38
7	3/20/78	13	2	0.210	0.4338	0.550	4.49	9.43
7	3/20/78	13	13	0.223	0.4655	0.590	4.59	9.53
7	3/20/78	13	21	0.235	0.4972	0.630	4.67	9.62
7	3/20/78	13	31	0.247	0.5290	0.671	4.78	9.72
7	3/20/78	13	35	0.253	0.5448	0.691	4.83	9.77
7	3/20/78	13	41	0.259	0.5607	0.711	4.90	9.84
7	3/20/78	13	52	0.265	0.5765	0.731	5.03	9.97
7	3/20/78	14	10	0.268	0.5845	0.741	5.25	10.19
7	3/20/78	14	38	0.271	0.5924	0.751	5.60	10.54
7	3/20/78	14	58	0.271	0.5924	0.751	5.85	10.79
7	3/20/78	15	40	0.268	0.5845	0.741	6.37	11.31

TABLE D1-14. CONTINUED

SITE	DATE	HOUR	MIN	STAGE M	RUNOFF RATE CMS	RUNOFF INTENSITY MMPH	STORM RUNOFF MM	ANNUAL RUNOFF MM
7	3/20/78	15	56	0.265	0.5765	0.731	6.57	11.51
7	3/20/78	16	10	0.262	0.5686	0.721	6.73	11.68
7	3/20/78	16	24	0.259	0.5607	0.711	6.90	11.85
7	3/20/78	16	42	0.256	0.5527	0.701	7.11	12.06
7	3/20/78	16	56	0.253	0.5448	0.691	7.28	12.22
7	3/20/78	17	8	0.250	0.5369	0.681	7.41	12.36
7	3/20/78	17	24	0.247	0.5290	0.671	7.59	12.54
7	3/20/78	17	40	0.244	0.5210	0.660	7.77	12.71
7	3/20/78	17	46	0.241	0.5131	0.650	7.84	12.78
7	3/20/78	17	58	0.238	0.5052	0.640	7.97	12.91
7	3/20/78	18	6	0.235	0.4972	0.630	8.05	12.99
7	3/20/78	18	17	0.232	0.4893	0.620	8.16	13.11
7	3/20/78	18	25	0.229	0.4814	0.610	8.25	13.19
7	3/20/78	18	35	0.226	0.4735	0.600	8.35	13.29
7	3/20/78	18	43	0.223	0.4655	0.590	8.43	13.37
7	3/20/78	18	53	0.219	0.4576	0.580	8.52	13.47
7	3/20/78	19	2	0.216	0.4497	0.570	8.61	13.55
7	3/20/78	19	9	0.213	0.4417	0.560	8.68	13.62
7	3/20/78	19	17	0.210	0.4338	0.550	8.75	13.69
7	3/20/78	19	28	0.207	0.4259	0.540	8.85	13.79
7	3/20/78	19	33	0.204	0.4180	0.530	8.89	13.84
7	3/20/78	19	40	0.201	0.4100	0.520	8.96	13.90
7	3/20/78	19	47	0.198	0.4021	0.510	9.02	13.96
7	3/20/78	19	55	0.195	0.3942	0.500	9.08	14.03
7	3/20/78	20	3	0.192	0.3862	0.490	9.15	14.09
7	3/20/78	20	11	0.189	0.3783	0.480	9.21	14.16
7	3/20/78	20	20	0.186	0.3704	0.470	9.29	14.23
7	3/20/78	20	29	0.183	0.3625	0.459	9.35	14.30
7	3/20/78	20	37	0.180	0.3545	0.449	9.42	14.36
7	3/20/78	20	47	0.177	0.3466	0.439	9.49	14.43
7	3/20/78	20	57	0.174	0.3387	0.429	9.56	14.51
7	3/20/78	21	6	0.171	0.3307	0.419	9.63	14.57
7	3/20/78	21	22	0.168	0.3228	0.409	9.74	14.68
7	3/20/78	21	30	0.165	0.3149	0.399	9.79	14.73
7	3/20/78	21	40	0.162	0.3070	0.389	9.86	14.80
7	3/20/78	22	2	0.155	0.2911	0.369	9.99	14.94
7	3/20/78	22	12	0.152	0.2832	0.359	10.06	15.00
7	3/20/78	22	22	0.149	0.2775	0.352	10.11	15.06
7	3/20/78	22	40	0.146	0.2718	0.345	10.22	15.16
7	3/20/78	22	54	0.143	0.2662	0.337	10.30	15.24
7	3/20/78	23	9	0.140	0.2605	0.330	10.38	15.33
7	3/20/78	23	28	0.137	0.2549	0.323	10.49	15.43
7	3/20/78	23	44	0.134	0.2492	0.316	10.57	15.51
7	3/21/78	0	6	0.131	0.2435	0.309	10.69	15.63
7	3/21/78	0	20	0.128	0.2379	0.302	10.76	15.70
7	3/21/78	0	54	0.125	0.2322	0.294	10.93	15.87
7	3/21/78	1	51	0.122	0.2265	0.287	11.20	16.15
7	3/21/78	3	2	0.119	0.2209	0.280	11.54	16.48
7	3/21/78	4	4	0.116	0.2152	0.273	11.82	16.77
7	3/21/78	4	19	0.113	0.2095	0.266	11.89	16.83
7	3/21/78	4	33	0.110	0.2039	0.258	11.95	16.89
7	3/21/78	4	48	0.107	0.1982	0.251	12.01	16.96
7	3/21/78	5	2	0.104	0.1926	0.244	12.07	17.02
7	3/21/78	5	17	0.101	0.1869	0.237	12.13	17.08
7	3/21/78	5	31	0.098	0.1812	0.230	12.19	17.13
7	3/21/78	5	46	0.094	0.1756	0.223	12.24	17.19
7	3/21/78	5	56	0.091	0.1699	0.215	12.28	17.22
7	3/21/78	6	10	0.088	0.1642	0.208	12.33	17.27
7	3/21/78	6	20	0.085	0.1586	0.201	12.36	17.31
7	3/21/78	6	32	0.082	0.1529	0.194	12.40	17.35
7	3/21/78	6	46	0.079	0.1472	0.187	12.45	17.39
7	3/21/78	6	58	0.076	0.1416	0.179	12.48	17.43
7	3/21/78	7	12	0.073	0.1359	0.172	12.53	17.47
7	3/21/78	7	21	0.070	0.1303	0.165	12.55	17.49
7	3/21/78	7	40	0.067	0.1246	0.158	12.60	17.55
7	3/21/78	7	51	0.064	0.1189	0.151	12.63	17.57
7	3/21/78	8	7	0.061	0.1133	0.144	12.67	17.61
7	3/21/78	8	21	0.058	0.1076	0.136	12.70	17.65
7	3/21/78	8	39	0.055	0.1019	0.129	12.74	17.69
7	3/21/78	8	55	0.052	0.0963	0.122	12.78	17.72
7	3/21/78	9	16	0.049	0.0906	0.115	12.82	17.76
7	3/21/78	9	36	0.046	0.0850	0.108	12.85	17.80
7	3/21/78	9	59	0.043	0.0793	0.101	12.89	17.84
7	3/21/78	10	20	0.040	0.0736	0.093	12.93	17.87
7	3/21/78	10	25	0.040	0.0736	0.093	12.94	17.88
7	3/21/78	10	32	0.046	0.0850	0.108	12.95	17.89
7	3/21/78	10	40	0.052	0.0963	0.122	12.96	17.91
7	3/21/78	10	48	0.058	0.1076	0.136	12.98	17.92
7	3/21/78	10	56	0.064	0.1189	0.151	13.00	17.94
7	3/21/78	11	4	0.070	0.1303	0.165	13.02	17.96
7	3/21/78	11	11	0.076	0.1416	0.179	13.04	17.98
7	3/21/78	11	18	0.082	0.1529	0.194	13.06	18.01
7	3/21/78	11	26	0.088	0.1642	0.208	13.09	18.03
7	3/21/78	11	34	0.094	0.1756	0.223	13.12	18.06
7	3/21/78	11	42	0.101	0.1869	0.237	13.15	18.09
7	3/21/78	11	46	0.104	0.1926	0.244	13.16	18.11
7	3/21/78	11	51	0.107	0.1982	0.251	13.18	18.13
7	3/21/78	11	53	0.113	0.2095	0.266	13.19	18.14
7	3/21/78	11	59	0.119	0.2209	0.280	13.22	18.16
7	3/21/78	12	4	0.125	0.2322	0.294	13.24	18.19
7	3/21/78	12	8	0.131	0.2435	0.309	13.26	18.21
7	3/21/78	12	13	0.137	0.2549	0.323	13.29	18.23
7	3/21/78	12	18	0.143	0.2662	0.337	13.32	18.26
7	3/21/78	12	25	0.149	0.2775	0.352	13.36	18.30
7	3/21/78	12	29	0.152	0.2832	0.359	13.38	18.33
7	3/21/78	12	33	0.155	0.2911	0.369	13.41	18.35
7	3/21/78	12	37	0.162	0.3070	0.389	13.43	18.37
7	3/21/78	12	40	0.168	0.3228	0.409	13.45	18.39
7	3/21/78	12	42	0.171	0.3307	0.419	13.47	18.41
7	3/21/78	12	46	0.174	0.3387	0.429	13.49	18.44
7	3/21/78	12	50	0.177	0.3466	0.439	13.52	18.47
7	3/21/78	12	54	0.180	0.3545	0.449	13.55	18.50
7	3/21/78	12	59	0.183	0.3625	0.459	13.59	18.53
7	3/21/78	13	5	0.186	0.3704	0.470	13.64	18.58

TABLE D1-14. CONTINUED

SITE	DATE	HOUR	MIN	STAGE M	RUNOFF RATE CMS	RUNOFF INTENSITY MMPH	STORM RUNOFF MM	ANNUAL RUNOFF MM
7	3/21/78	13	7	0.189	0.3783	0.480	13.65	18.60
7	3/21/78	13	10	0.192	0.3862	0.490	13.68	18.62
7	3/21/78	13	16	0.195	0.3942	0.500	13.73	18.67
7	3/21/78	13	24	0.198	0.4021	0.510	13.79	18.74
7	3/21/78	13	30	0.201	0.4100	0.520	13.84	18.79
7	3/21/78	13	38	0.204	0.4180	0.530	13.91	18.86
7	3/21/78	13	45	0.207	0.4259	0.540	13.98	18.92
7	3/21/78	13	55	0.210	0.4338	0.550	14.07	19.01
7	3/21/78	14	20	0.213	0.4417	0.560	14.30	19.24
7	3/21/78	14	32	0.213	0.4417	0.560	14.41	19.35
7	3/21/78	14	49	0.210	0.4338	0.550	14.57	19.51
7	3/21/78	15	1	0.207	0.4259	0.540	14.68	19.62
7	3/21/78	15	15	0.204	0.4180	0.530	14.80	19.75
7	3/21/78	15	25	0.201	0.4100	0.520	14.89	19.83
7	3/21/78	15	35	0.198	0.4021	0.510	14.98	19.92
7	3/21/78	15	42	0.195	0.3942	0.500	15.03	19.98
7	3/21/78	15	49	0.192	0.3862	0.490	15.09	20.04
7	3/21/78	15	57	0.189	0.3783	0.480	15.16	20.10
7	3/21/78	16	2	0.186	0.3704	0.470	15.20	20.14
7	3/21/78	16	9	0.183	0.3625	0.459	15.25	20.19
7	3/21/78	16	21	0.180	0.3545	0.449	15.34	20.28
7	3/21/78	16	30	0.177	0.3466	0.439	15.41	20.35
7	3/21/78	16	44	0.174	0.3387	0.429	15.51	20.45
7	3/21/78	16	53	0.171	0.3307	0.419	15.57	20.52
7	3/21/78	17	3	0.168	0.3228	0.409	15.64	20.58
7	3/21/78	17	10	0.165	0.3149	0.399	15.69	20.63
7	3/21/78	17	18	0.162	0.3070	0.389	15.74	20.68
7	3/21/78	17	34	0.155	0.2911	0.369	15.84	20.79
7	3/21/78	17	50	0.149	0.2775	0.352	15.94	20.88
7	3/21/78	18	7	0.143	0.2662	0.337	16.04	20.98
7	3/21/78	18	23	0.137	0.2549	0.323	16.12	21.07
7	3/21/78	18	41	0.131	0.2435	0.309	16.22	21.16
7	3/21/78	18	57	0.125	0.2322	0.294	16.30	21.24
7	3/21/78	19	13	0.119	0.2209	0.280	16.38	21.32
7	3/21/78	19	35	0.113	0.2095	0.266	16.48	21.42
7	3/21/78	19	57	0.110	0.2039	0.258	16.57	21.52
7	3/21/78	20	14	0.107	0.1982	0.251	16.64	21.59
7	3/21/78	20	38	0.101	0.1869	0.237	16.74	21.69
7	3/21/78	20	58	0.094	0.1756	0.223	16.82	21.76
7	3/21/78	21	22	0.088	0.1642	0.208	16.90	21.85
7	3/21/78	21	48	0.082	0.1529	0.194	16.99	21.93
7	3/21/78	22	10	0.076	0.1416	0.179	17.06	22.00
7	3/21/78	22	36	0.070	0.1303	0.165	17.14	22.08
7	3/21/78	23	8	0.064	0.1189	0.151	17.22	22.16
7	3/21/78	23	39	0.058	0.1076	0.136	17.29	22.24
7	3/22/78	0	22	0.052	0.0963	0.122	17.39	22.33
7	3/22/78	1	0	0.046	0.0850	0.108	17.46	22.40
7	3/22/78	1	32	0.040	0.0736	0.093	17.51	22.46
7	3/22/78	2	1	0.034	0.0623	0.079	17.55	22.50
7	3/22/78	2	31	0.027	0.0510	0.065	17.59	22.53
7	3/22/78	2	59	0.021	0.0396	0.050	17.62	22.56
7	3/22/78	3	27	0.015	0.0283	0.036	17.64	22.58
7	3/22/78	3	58	0.009	0.0170	0.022	17.65	22.59
7	3/22/78	4	23	0.003	0.0057	0.007	17.66	22.60
7	3/22/78	4	36	0.0	0.0	0.0	17.66	22.60
7	3/22/78	11	0	0.0	0.0	0.0	17.66	22.60
7	3/22/78	15	0	0.030	0.0566	0.072	17.80	22.74
7	3/22/78	21	0	0.0	0.0	0.0	18.02	22.96
7	4/17/78	16	40	0.0	0.0	0.0	0.0	22.96
7	4/17/78	16	56	0.101	0.1869	0.237	0.03	22.99
7	4/17/78	16	57	0.104	0.1926	0.244	0.04	23.00
7	4/17/78	16	58	0.110	0.2039	0.258	0.04	23.00
7	4/17/78	16	59	0.113	0.2095	0.266	0.04	23.00
7	4/17/78	17	2	0.116	0.2152	0.273	0.06	23.02
7	4/17/78	17	5	0.116	0.2152	0.273	0.07	23.03
7	4/17/78	17	12	0.113	0.2095	0.266	0.10	23.06
7	4/17/78	17	19	0.110	0.2039	0.258	0.13	23.09
7	4/17/78	17	23	0.107	0.1982	0.251	0.15	23.11
7	4/17/78	17	30	0.104	0.1926	0.244	0.18	23.14
7	4/17/78	17	36	0.101	0.1869	0.237	0.20	23.16
7	4/17/78	20	0	0.0	0.0	0.0	0.49	23.45
7	4/17/78	22	50	0.0	0.0	0.0	0.49	23.45
7	4/17/78	23	5	0.101	0.1869	0.237	0.52	23.48
7	4/17/78	23	7	0.104	0.1926	0.244	0.53	23.49
7	4/17/78	23	8	0.107	0.1982	0.251	0.53	23.49
7	4/17/78	23	9	0.110	0.2039	0.258	0.53	23.49
7	4/17/78	23	10	0.113	0.2095	0.266	0.54	23.50
7	4/17/78	23	12	0.116	0.2152	0.273	0.55	23.51
7	4/17/78	23	14	0.119	0.2209	0.280	0.56	23.52
7	4/17/78	23	16	0.122	0.2265	0.287	0.57	23.53
7	4/17/78	23	18	0.125	0.2322	0.294	0.58	23.54
7	4/17/78	23	19	0.131	0.2435	0.309	0.58	23.54
7	4/17/78	23	20	0.140	0.2605	0.330	0.59	23.55
7	4/17/78	23	21	0.174	0.3387	0.429	0.59	23.55
7	4/17/78	23	22	0.198	0.4021	0.510	0.60	23.56
7	4/17/78	23	23	0.213	0.4417	0.560	0.61	23.57
7	4/17/78	23	24	0.216	0.4497	0.570	0.62	23.58
7	4/17/78	23	25	0.223	0.4655	0.590	0.63	23.59
7	4/17/78	23	26	0.226	0.4735	0.600	0.64	23.60
7	4/17/78	23	27	0.229	0.4814	0.610	0.65	23.61
7	4/17/78	23	28	0.232	0.4893	0.620	0.66	23.62
7	4/17/78	23	29	0.238	0.5052	0.640	0.67	23.63
7	4/17/78	23	30	0.247	0.5290	0.671	0.68	23.64
7	4/17/78	23	31	0.253	0.5448	0.691	0.69	23.65
7	4/17/78	23	32	0.265	0.5765	0.731	0.70	23.66
7	4/17/78	23	33	0.268	0.5845	0.741	0.71	23.67
7	4/17/78	23	34	0.277	0.6082	0.771	0.73	23.69
7	4/17/78	23	35	0.283	0.6241	0.791	0.74	23.70
7	4/17/78	23	37	0.290	0.6400	0.811	0.77	23.73
7	4/17/78	23	38	0.293	0.6479	0.821	0.78	23.74
7	4/17/78	23	39	0.296	0.6558	0.831	0.79	23.75
7	4/17/78	23	40	0.299	0.6637	0.841	0.81	23.77

TABLE D1-14. CONTINUED

SITE	DATE	HOUR	MIN	STAGE M	RUNOFF RATE CMS	RUNOFF INTENSITY MMPH	STORM RUNOFF MM	ANNUAL RUNOFF MM
7	4/17/78	23	43	0.302	0.6717	0.851	0.85	23.81
7	4/17/78	23	47	0.305	0.6796	0.861	0.91	23.87
7	4/17/78	23	51	0.308	0.6898	0.874	0.97	23.93
7	4/17/78	23	53	0.311	0.7000	0.887	1.00	23.96
7	4/17/78	23	55	0.314	0.7102	0.900	1.02	23.98
7	4/17/78	23	56	0.317	0.7204	0.913	1.04	24.00
7	4/17/78	23	57	0.320	0.7306	0.926	1.06	24.02
7	4/17/78	23	58	0.323	0.7408	0.939	1.07	24.03
7	4/17/78	24	0	0.326	0.7510	0.952	1.10	24.06
7	4/18/78	0	1	0.329	0.7612	0.965	1.12	24.08
7	4/18/78	0	2	0.332	0.7713	0.978	1.13	24.09
7	4/18/78	0	4	0.335	0.7815	0.991	1.17	24.13
7	4/18/78	0	5	0.338	0.7917	1.004	1.18	24.14
7	4/18/78	0	6	0.341	0.8019	1.017	1.20	24.16
7	4/18/78	0	7	0.344	0.8121	1.029	1.22	24.18
7	4/18/78	0	8	0.351	0.8325	1.055	1.24	24.20
7	4/18/78	0	9	0.354	0.8427	1.068	1.25	24.21
7	4/18/78	0	10	0.357	0.8529	1.081	1.27	24.23
7	4/18/78	0	11	0.360	0.8631	1.094	1.29	24.25
7	4/18/78	0	12	0.363	0.8733	1.107	1.31	24.27
7	4/13/78	0	13	0.369	0.8937	1.133	1.33	24.29
7	4/18/78	0	14	0.372	0.9039	1.146	1.34	24.30
7	4/18/78	0	15	0.375	0.9141	1.159	1.36	24.32
7	4/18/78	0	16	0.378	0.9243	1.172	1.38	24.34
7	4/18/78	0	17	0.381	0.9345	1.185	1.40	24.36
7	4/18/78	0	18	0.387	0.9548	1.210	1.42	24.38
7	4/18/78	0	20	0.393	0.9752	1.236	1.46	24.42
7	4/18/78	0	21	0.396	0.9854	1.249	1.48	24.44
7	4/18/78	0	23	0.399	0.9956	1.262	1.53	24.49
7	4/18/78	0	25	0.402	1.0058	1.275	1.57	24.53
7	4/18/78	0	27	0.405	1.0160	1.288	1.61	24.57
7	4/18/78	0	30	0.408	1.0262	1.301	1.68	24.64
7	4/18/78	0	34	0.405	1.0160	1.288	1.76	24.72
7	4/18/78	0	38	0.402	1.0058	1.275	1.85	24.81
7	4/18/78	0	42	0.399	0.9956	1.262	1.93	24.89
7	4/18/78	0	45	0.396	0.9854	1.249	2.00	24.96
7	4/18/78	0	48	0.393	0.9752	1.236	2.06	25.02
7	4/18/78	0	49	0.390	0.9650	1.223	2.08	25.04
7	4/18/78	0	50	0.387	0.9548	1.210	2.10	25.06
7	4/18/78	0	52	0.384	0.9446	1.197	2.14	25.10
7	4/18/78	0	53	0.381	0.9345	1.185	2.16	25.12
7	4/18/78	0	54	0.378	0.9243	1.172	2.18	25.14
7	4/18/78	0	55	0.375	0.9141	1.159	2.20	25.16
7	4/18/78	0	57	0.372	0.9039	1.146	2.24	25.20
7	4/18/78	0	58	0.369	0.8937	1.133	2.25	25.21
7	4/18/78	0	59	0.366	0.8835	1.120	2.27	25.23
7	4/18/78	1	0	0.363	0.8733	1.107	2.29	25.25
7	4/18/78	1	2	0.360	0.8631	1.094	2.33	25.29
7	4/18/78	1	4	0.357	0.8529	1.081	2.36	25.32
7	4/18/78	1	5	0.354	0.8427	1.068	2.38	25.34
7	4/18/78	1	6	0.351	0.8325	1.055	2.40	25.36
7	4/18/78	1	8	0.347	0.8223	1.042	2.44	25.40
7	4/18/78	1	9	0.344	0.8121	1.029	2.45	25.41
7	4/18/78	1	10	0.341	0.8019	1.017	2.47	25.43
7	4/18/78	1	11	0.338	0.7917	1.004	2.49	25.45
7	4/18/78	1	13	0.335	0.7815	0.991	2.52	25.48
7	4/18/78	1	14	0.332	0.7713	0.978	2.54	25.50
7	4/18/78	1	16	0.329	0.7612	0.965	2.57	25.53
7	4/18/78	1	17	0.326	0.7510	0.952	2.58	25.54
7	4/18/78	1	18	0.323	0.7408	0.939	2.60	25.56
7	4/18/78	1	19	0.320	0.7306	0.926	2.62	25.58
7	4/18/78	1	21	0.317	0.7204	0.913	2.65	25.61
7	4/18/78	1	22	0.314	0.7102	0.900	2.66	25.62
7	4/18/78	1	23	0.311	0.7000	0.887	2.68	25.64
7	4/18/78	1	24	0.308	0.6898	0.874	2.69	25.65
7	4/18/78	1	26	0.305	0.6796	0.861	2.72	25.68
7	4/18/78	1	27	0.302	0.6717	0.851	2.73	25.69
7	4/18/78	1	28	0.299	0.6637	0.841	2.75	25.71
7	4/18/78	1	30	0.296	0.6558	0.831	2.78	25.74
7	4/18/78	1	31	0.293	0.6479	0.821	2.79	25.75
7	4/18/78	1	33	0.290	0.6400	0.811	2.82	25.78
7	4/18/78	1	35	0.287	0.6320	0.801	2.84	25.80
7	4/18/78	1	36	0.283	0.6241	0.791	2.86	25.82
7	4/18/78	1	37	0.280	0.6162	0.781	2.87	25.83
7	4/18/78	1	39	0.277	0.6082	0.771	2.90	25.86
7	4/18/78	1	40	0.274	0.6003	0.761	2.91	25.87
7	4/18/78	1	41	0.271	0.5924	0.751	2.92	25.88
7	4/18/78	1	43	0.268	0.5845	0.741	2.95	25.91
7	4/18/78	1	44	0.265	0.5765	0.731	2.96	25.92
7	4/18/78	1	46	0.262	0.5686	0.721	2.98	25.94
7	4/18/78	1	47	0.259	0.5607	0.711	3.00	25.98
7	4/18/78	1	49	0.256	0.5527	0.701	3.02	25.98
7	4/18/78	1	50	0.253	0.5448	0.691	3.03	25.99
7	4/18/78	1	51	0.250	0.5369	0.681	3.04	26.00
7	4/18/78	1	53	0.247	0.5290	0.671	3.06	26.02
7	4/18/78	1	55	0.244	0.5210	0.660	3.09	26.05
7	4/18/78	1	56	0.241	0.5131	0.650	3.10	26.06
7	4/18/78	1	58	0.238	0.5052	0.640	3.12	26.08
7	4/18/78	1	59	0.235	0.4972	0.630	3.13	26.09
7	4/18/78	2	1	0.232	0.4893	0.620	3.15	26.11
7	4/18/78	2	3	0.229	0.4814	0.610	3.17	26.13
7	4/18/78	2	4	0.226	0.4735	0.600	3.18	26.14
7	4/18/78	2	6	0.223	0.4655	0.590	3.20	26.16
7	4/18/78	2	8	0.219	0.4576	0.580	3.22	26.18
7	4/18/78	2	10	0.216	0.4497	0.570	3.24	26.20
7	4/18/78	2	13	0.213	0.4417	0.560	3.27	26.23
7	4/18/78	2	16	0.210	0.4338	0.550	3.30	26.26
7	4/18/78	2	20	0.207	0.4259	0.540	3.33	26.29
7	4/18/78	2	22	0.204	0.4180	0.530	3.35	26.31
7	4/18/78	2	25	0.201	0.4100	0.520	3.38	26.33
7	4/18/78	2	26	0.198	0.4021	0.510	3.38	26.34
7	4/18/78	2	29	0.195	0.3942	0.500	3.41	26.37
7	4/18/78	2	30	0.192	0.3862	0.490	3.42	26.38
7	4/18/78	2	33	0.189	0.3783	0.480	3.44	26.40

TABLE DI-14. CONTINUED

SITE	DATE	HOUR	MIN	STAGE M	RUNOFF RATE CMS	RUNOFF INTENSITY MMPH	STORM RUNOFF MM	ANNUAL RUNOFF MM
7	4/18/78	2	35	0.186	0.3704	0.470	0.02	26.42
7	4/18/78	2	39	0.183	0.3625	0.459	0.05	26.45
7	4/18/78	2	42	0.180	0.3545	0.449	0.07	26.47
7	4/18/78	2	45	0.177	0.3466	0.439	0.09	26.49
7	4/18/78	2	48	0.174	0.3387	0.429	0.11	26.51
7	4/18/78	2	51	0.171	0.3307	0.419	0.13	26.54
7	4/18/78	2	54	0.168	0.3228	0.409	0.16	26.56
7	4/18/78	2	58	0.165	0.3149	0.399	0.18	26.58
7	4/18/78	3	0	0.162	0.3070	0.389	0.20	26.60
7	4/18/78	3	5	0.158	0.2990	0.379	0.23	26.63
7	4/18/78	3	9	0.155	0.2911	0.369	0.25	26.65
7	4/18/78	3	14	0.152	0.2832	0.359	0.28	26.68
7	4/18/78	3	18	0.149	0.2775	0.352	0.31	26.71
7	4/18/78	3	26	0.146	0.2718	0.345	0.35	26.75
7	4/18/78	3	32	0.143	0.2662	0.337	0.39	26.79
7	4/18/78	3	40	0.140	0.2605	0.330	0.43	26.83
7	4/18/78	3	46	0.137	0.2549	0.323	0.47	26.88
7	4/18/78	4	0	0.134	0.2492	0.316	0.54	26.94
7	4/18/78	4	14	0.131	0.2435	0.309	0.61	27.01
7	4/18/78	4	25	0.128	0.2379	0.302	0.67	27.07
7	4/18/78	6	3	0.128	0.2379	0.302	1.16	27.56
7	4/18/78	6	25	0.125	0.2322	0.294	1.27	27.67
7	4/18/78	7	2	0.122	0.2265	0.287	1.45	27.85
7	4/18/78	7	10	0.119	0.2209	0.280	1.49	27.89
7	4/18/78	7	27	0.116	0.2152	0.273	1.56	27.97
7	4/18/78	8	30	0.101	0.1869	0.237	1.83	28.23
7	4/18/78	13	4	0.027	0.0510	0.065	2.52	28.92
7	4/18/78	14	4	0.009	0.0170	0.022	2.56	28.96
7	4/18/78	14	36	0.003	0.0057	0.007	2.57	28.97
7	4/18/78	15	30	0.0	0.0	0.0	2.57	28.98
7	8/26/78	20	48	0.0	0.0	0.0	0.0	28.98
7	8/26/78	20	49	0.015	0.0071	0.009	0.00	28.98
7	8/26/78	20	50	0.018	0.0085	0.011	0.00	28.98
7	8/26/78	20	52	0.021	0.0099	0.013	0.00	28.98
7	8/26/78	20	55	0.018	0.0085	0.011	0.00	28.98
7	8/26/78	20	56	0.015	0.0071	0.009	0.00	28.98
7	8/26/78	20	57	0.012	0.0057	0.007	0.00	28.98
7	8/26/78	20	58	0.006	0.0028	0.004	0.00	28.98
7	8/26/78	22	40	0.006	0.0028	0.004	0.01	28.98
7	8/26/78	22	41	0.018	0.0085	0.011	0.01	28.98
7	8/26/78	22	42	0.027	0.0127	0.016	0.01	28.98
7	8/26/78	22	43	0.030	0.0142	0.018	0.01	28.98
7	8/26/78	22	44	0.034	0.0173	0.022	0.01	28.98
7	8/26/78	22	46	0.037	0.0204	0.026	0.01	28.99
7	8/26/78	22	47	0.040	0.0235	0.030	0.01	28.99
7	8/26/78	22	49	0.043	0.0266	0.034	0.01	28.99
7	8/26/78	22	52	0.046	0.0297	0.038	0.01	28.99
7	8/26/78	22	55	0.049	0.0328	0.042	0.01	28.99
7	8/26/78	22	57	0.052	0.0360	0.046	0.02	28.99
7	8/26/78	22	59	0.055	0.0391	0.050	0.02	28.99
7	8/26/78	23	2	0.058	0.0422	0.053	0.02	29.00
7	8/26/78	23	4	0.061	0.0453	0.057	0.02	29.00
7	8/26/78	23	6	0.064	0.0490	0.062	0.02	29.00
7	8/26/78	23	8	0.067	0.0527	0.067	0.03	29.00
7	8/26/78	23	10	0.070	0.0564	0.071	0.03	29.00
7	8/26/78	23	12	0.073	0.0600	0.076	0.03	29.01
7	8/26/78	23	14	0.076	0.0637	0.081	0.03	29.01
7	8/26/78	23	16	0.079	0.0674	0.085	0.04	29.01
7	8/26/78	23	20	0.082	0.0711	0.090	0.04	29.02
7	8/26/78	23	23	0.085	0.0748	0.095	0.05	29.02
7	8/26/78	23	27	0.088	0.0784	0.099	0.05	29.03
7	8/26/78	23	30	0.091	0.0821	0.104	0.06	29.03
7	8/26/78	23	34	0.094	0.0864	0.109	0.07	29.04
7	8/26/78	23	36	0.098	0.0906	0.115	0.07	29.04
7	8/26/78	23	39	0.101	0.0949	0.120	0.08	29.05
7	8/26/78	23	42	0.104	0.0991	0.126	0.08	29.06
7	8/26/78	23	46	0.107	0.1034	0.131	0.09	29.07
7	8/26/78	23	50	0.110	0.1076	0.136	0.10	29.07
7	8/26/78	23	54	0.113	0.1119	0.142	0.11	29.08
7	8/27/78	0	17	0.113	0.1119	0.142	0.16	29.14
7	8/27/78	0	27	0.110	0.1076	0.136	0.19	29.16
7	8/27/78	0	39	0.107	0.1034	0.131	0.21	29.19
7	8/27/78	0	51	0.104	0.0991	0.126	0.24	29.21
7	8/27/78	0	57	0.101	0.0949	0.120	0.25	29.23
7	8/27/78	1	3	0.098	0.0906	0.115	0.26	29.24
7	8/27/78	1	9	0.094	0.0864	0.109	0.27	29.25
7	8/27/78	1	14	0.091	0.0821	0.104	0.28	29.26
7	8/27/78	1	20	0.088	0.0784	0.099	0.29	29.27
7	8/27/78	1	27	0.085	0.0748	0.095	0.30	29.28
7	8/27/78	1	35	0.082	0.0711	0.090	0.32	29.29
7	8/27/78	1	41	0.079	0.0674	0.085	0.32	29.30
7	8/27/78	1	48	0.076	0.0637	0.081	0.33	29.31
7	8/27/78	1	54	0.073	0.0600	0.076	0.34	29.32
7	8/27/78	2	0	0.070	0.0564	0.071	0.35	29.33
7	8/27/78	2	6	0.067	0.0527	0.067	0.36	29.33
7	8/27/78	2	12	0.064	0.0490	0.062	0.36	29.34
7	8/27/78	2	17	0.061	0.0453	0.057	0.37	29.34
7	8/27/78	2	24	0.058	0.0422	0.053	0.37	29.35
7	8/27/78	2	32	0.055	0.0391	0.050	0.38	29.36
7	8/27/78	2	41	0.052	0.0360	0.046	0.39	29.36
7	8/27/78	2	49	0.049	0.0328	0.042	0.39	29.37
7	8/27/78	2	59	0.046	0.0297	0.038	0.40	29.38
7	8/27/78	3	7	0.043	0.0266	0.034	0.41	29.38
7	8/27/78	3	15	0.040	0.0235	0.030	0.41	29.39
7	8/27/78	3	26	0.037	0.0204	0.026	0.42	29.39
7	8/27/78	3	37	0.034	0.0173	0.022	0.42	29.39
7	8/27/78	3	46	0.030	0.0142	0.018	0.42	29.40
7	8/27/78	3	56	0.027	0.0127	0.016	0.43	29.40
7	8/27/78	4	7	0.024	0.0113	0.014	0.43	29.40
7	8/27/78	4	23	0.021	0.0099	0.013	0.43	29.41
7	8/27/78	4	28	0.018	0.0085	0.011	0.43	29.41
7	8/27/78	4	36	0.015	0.0071	0.009	0.43	29.41

TABLE D1-14. CONTINUED

SITE	DATE	HOUR	MIN	STAGE M	RUNOFF RATE CMS	RUNOFF INTENSITY MMPH	STORM RUNOFF MM	ANNUAL RUNOFF MM
7	8/27/78	4	41	0.012	0.0057	0.007	0.43	29.41
7	8/27/78	4	44	0.009	0.0042	0.005	0.43	29.41
7	8/27/78	4	46	0.0	0.0	0.0	0.44	29.41
7	9/14/78	1	33	0.0	0.0	0.0	0.0	29.41
7	9/14/78	1	34	0.012	0.0057	0.007	0.00	29.41
7	9/14/78	1	35	0.018	0.0085	0.011	0.00	29.41
7	9/14/78	1	36	0.021	0.0099	0.013	0.00	29.41
7	9/14/78	1	38	0.024	0.0113	0.014	0.00	29.41
7	9/14/78	1	39	0.027	0.0127	0.016	0.00	29.41
7	9/14/78	1	41	0.030	0.0142	0.018	0.00	29.41
7	9/14/78	1	46	0.034	0.0173	0.022	0.00	29.41
7	9/14/78	1	51	0.037	0.0204	0.026	0.01	29.42
7	9/14/78	2	2	0.040	0.0235	0.030	0.01	29.42
7	9/14/78	2	38	0.040	0.0235	0.030	0.03	29.44
7	9/14/78	3	0	0.037	0.0204	0.026	0.04	29.45
7	9/14/78	3	15	0.034	0.0173	0.022	0.04	29.45
7	9/14/78	3	28	0.030	0.0142	0.018	0.05	29.46
7	9/14/78	3	44	0.027	0.0127	0.016	0.05	29.46
7	9/14/78	3	55	0.024	0.0113	0.014	0.06	29.47
7	9/14/78	4	12	0.021	0.0099	0.013	0.06	29.47
7	9/14/78	4	26	0.018	0.0085	0.011	0.06	29.47
7	9/14/78	4	34	0.015	0.0071	0.009	0.06	29.47
7	9/14/78	4	39	0.012	0.0057	0.007	0.06	29.47
7	9/14/78	4	44	0.0	0.0	0.0	0.06	29.48
7	9/20/78	0	38	0.0	0.0	0.0	0.0	29.48
7	9/20/78	0	39	0.012	0.0057	0.007	0.00	29.48
7	9/20/78	0	40	0.015	0.0071	0.009	0.00	29.48
7	9/20/78	0	41	0.018	0.0085	0.011	0.00	29.48
7	9/20/78	0	45	0.021	0.0099	0.013	0.00	29.48
7	9/20/78	0	49	0.024	0.0113	0.014	0.00	29.48
7	9/20/78	0	52	0.027	0.0127	0.016	0.00	29.48
7	9/20/78	1	1	0.030	0.0142	0.018	0.01	29.48
7	9/20/78	1	10	0.034	0.0173	0.022	0.01	29.48
7	9/20/78	1	18	0.037	0.0204	0.026	0.01	29.49
7	9/20/78	1	28	0.040	0.0235	0.030	0.02	29.49
7	9/20/78	1	38	0.043	0.0266	0.034	0.02	29.50
7	9/20/78	2	13	0.046	0.0297	0.038	0.04	29.52
7	9/20/78	2	33	0.046	0.0297	0.038	0.05	29.53
7	9/20/78	3	31	0.043	0.0266	0.034	0.09	29.56
7	9/20/78	8	21	0.043	0.0266	0.034	0.25	29.73
7	9/20/78	8	36	0.046	0.0297	0.038	0.26	29.74
7	9/20/78	8	53	0.049	0.0328	0.042	0.27	29.75
7	9/20/78	9	9	0.052	0.0360	0.046	0.28	29.76
7	9/20/78	9	26	0.055	0.0391	0.050	0.30	29.77
7	9/20/78	9	32	0.058	0.0422	0.053	0.30	29.78
7	9/20/78	9	35	0.061	0.0453	0.057	0.31	29.78
7	9/20/78	9	39	0.064	0.0490	0.062	0.31	29.78
7	9/20/78	9	45	0.067	0.0527	0.067	0.32	29.79
7	9/20/78	9	50	0.070	0.0564	0.071	0.32	29.80
7	9/20/78	9	55	0.073	0.0600	0.076	0.33	29.80
7	9/20/78	10	0	0.076	0.0637	0.081	0.33	29.81
7	9/20/78	10	20	0.079	0.0674	0.085	0.36	29.84
7	9/20/78	10	43	0.082	0.0711	0.090	0.40	29.87
7	9/20/78	10	56	0.085	0.0748	0.095	0.42	29.89
7	9/20/78	11	4	0.088	0.0784	0.099	0.43	29.90
7	9/20/78	11	8	0.091	0.0821	0.104	0.44	29.91
7	9/20/78	11	13	0.094	0.0864	0.109	0.44	29.92
7	9/20/78	11	17	0.098	0.0906	0.115	0.45	29.93
7	9/20/78	11	22	0.101	0.0949	0.120	0.46	29.94
7	9/20/78	11	25	0.104	0.0991	0.126	0.47	29.94
7	9/20/78	11	28	0.107	0.1034	0.131	0.47	29.95
7	9/20/78	11	30	0.110	0.1076	0.136	0.48	29.95
7	9/20/78	11	32	0.113	0.1119	0.142	0.48	29.96
7	9/20/78	11	36	0.116	0.1161	0.147	0.49	29.97
7	9/20/78	11	40	0.119	0.1203	0.153	0.50	29.98
7	9/20/78	11	44	0.122	0.1246	0.158	0.51	29.99
7	9/20/78	11	48	0.125	0.1300	0.165	0.52	30.00
7	9/20/78	11	52	0.128	0.1354	0.172	0.54	30.01
7	9/20/78	11	57	0.131	0.1407	0.178	0.55	30.02
7	9/20/78	12	1	0.134	0.1461	0.185	0.56	30.04
7	9/20/78	12	7	0.137	0.1515	0.192	0.58	30.06
7	9/20/78	12	14	0.140	0.1569	0.199	0.60	30.08
7	9/20/78	12	22	0.143	0.1623	0.206	0.63	30.11
7	9/20/78	12	27	0.146	0.1676	0.212	0.65	30.12
7	9/20/78	12	32	0.149	0.1730	0.219	0.67	30.14
7	9/20/78	12	34	0.152	0.1784	0.226	0.67	30.15
7	9/20/78	12	40	0.155	0.1846	0.234	0.70	30.17
7	9/20/78	12	45	0.158	0.1909	0.242	0.72	30.19
7	9/20/78	13	29	0.158	0.1909	0.242	0.89	30.37
7	9/20/78	14	36	0.155	0.1846	0.234	1.16	30.63
7	9/20/78	15	3	0.152	0.1784	0.226	1.26	30.74
7	9/20/78	15	19	0.149	0.1730	0.219	1.32	30.80
7	9/20/78	15	37	0.146	0.1676	0.212	1.39	30.86
7	9/20/78	15	50	0.143	0.1623	0.206	1.43	30.91
7	9/20/78	16	0	0.140	0.1569	0.199	1.47	30.94
7	9/20/78	16	9	0.137	0.1515	0.192	1.50	30.97
7	9/20/78	16	20	0.134	0.1461	0.185	1.53	31.00
7	9/20/78	16	36	0.131	0.1407	0.178	1.58	31.05
7	9/20/78	16	48	0.128	0.1354	0.172	1.61	31.09
7	9/20/78	17	1	0.125	0.1300	0.165	1.65	31.12
7	9/20/78	17	12	0.122	0.1246	0.158	1.68	31.15
7	9/20/78	17	29	0.119	0.1203	0.153	1.72	31.20
7	9/20/78	17	44	0.116	0.1161	0.147	1.76	31.24
7	9/20/78	18	0	0.113	0.1119	0.142	1.80	31.27
7	9/20/78	18	12	0.110	0.1076	0.136	1.83	31.30
7	9/20/78	18	26	0.107	0.1034	0.131	1.86	31.33
7	9/20/78	18	35	0.104	0.0991	0.126	1.88	31.36
7	9/20/78	18	47	0.101	0.0949	0.120	1.90	31.38
7	9/20/78	18	59	0.098	0.0906	0.115	1.93	31.40
7	9/20/78	19	6	0.094	0.0864	0.109	1.94	31.41

TABLE D1-14. CONCLUDED

SITE	DATE	HOUR	MIN	STAGE M	RUNOFF RATE CMS	RUNOFF INTENSITY MMPH	STORM RUNOFF MM	ANNUAL RUNOFF MM
7	9/20/78	19	20	0.091	0.0821	0.104	1.96	31.44
7	9/20/78	19	36	0.088	0.0784	0.099	1.99	31.47
7	9/20/78	19	52	0.085	0.0748	0.095	2.02	31.49
7	9/20/78	20	6	0.082	0.0711	0.090	2.04	31.51
7	9/20/78	20	24	0.079	0.0674	0.085	2.06	31.54
7	9/20/78	20	42	0.076	0.0637	0.081	2.09	31.56
7	9/20/78	21	0	0.073	0.0600	0.076	2.11	31.59
7	9/20/78	21	18	0.070	0.0564	0.071	2.14	31.61
7	9/20/78	21	42	0.067	0.0527	0.067	2.16	31.64
7	9/20/78	22	10	0.064	0.0490	0.062	2.19	31.67
7	9/20/78	22	35	0.061	0.0453	0.057	2.22	31.69
7	9/20/78	23	19	0.058	0.0422	0.053	2.26	31.73
7	9/20/78	24	0	0.055	0.0391	0.050	2.29	31.77
7	9/21/78	0	37	0.052	0.0360	0.046	2.32	31.80
7	9/21/78	1	18	0.049	0.0328	0.042	2.35	31.83
7	9/21/78	2	9	0.046	0.0297	0.038	2.39	31.86
7	9/21/78	2	53	0.043	0.0266	0.034	2.41	31.89
7	9/21/78	3	40	0.040	0.0235	0.030	2.44	31.91
7	9/21/78	4	34	0.037	0.0204	0.026	2.46	31.94
7	9/21/78	5	39	0.034	0.0173	0.022	2.49	31.96
7	9/21/78	6	35	0.030	0.0142	0.018	2.51	31.98
7	9/21/78	7	56	0.027	0.0127	0.016	2.53	32.00
7	9/21/78	9	11	0.024	0.0113	0.014	2.55	32.02
7	9/21/78	10	54	0.021	0.0099	0.013	2.57	32.05
7	9/21/78	11	40	0.018	0.0085	0.011	2.58	32.06
7	9/21/78	12	22	0.015	0.0071	0.009	2.59	32.06
7	9/21/78	13	6	0.012	0.0057	0.007	2.59	32.07
7	9/21/78	13	33	0.009	0.0042	0.005	2.60	32.07
7	9/21/78	16	0	0.0	0.0	0.0	2.60	32.08

TABLE D1-15. FOUR MILE CREEK WATERSHED RUNOFF DATA FOR 1978 SITE 8

SITE	DATE	HOUR	MIN	STAGE M	RUNOFF RATE CMS	RUNOFF INTENSITY MMPH	STORM RUNOFF MM	ANNUAL RUNOFF MM
8	3/17/78	10	0	0.0	0.0	0.0	0.0	0.0
8	3/17/78	12	10	0.003	0.0028	0.007	0.01	0.01
8	3/17/78	18	0	0.0	0.0	0.0	0.03	0.03
8	3/18/78	10	0	0.0	0.0	0.0	0.0	0.03
8	3/18/78	15	10	0.003	0.0028	0.007	0.02	0.05
8	3/18/78	18	20	0.006	0.0057	0.014	0.05	0.08
8	3/18/78	24	0	0.0	0.0	0.0	0.09	0.12
8	3/19/78	9	0	0.0	0.0	0.0	0.0	0.12
8	3/19/78	9	28	0.006	0.0057	0.014	0.00	0.12
8	3/19/78	9	54	0.012	0.0113	0.027	0.01	0.13
8	3/19/78	10	21	0.018	0.0170	0.041	0.03	0.14
8	3/19/78	10	48	0.024	0.0227	0.055	0.05	0.17
8	3/19/78	11	14	0.030	0.0283	0.068	0.08	0.19
8	3/19/78	11	41	0.037	0.0453	0.109	0.12	0.23
8	3/19/78	12	14	0.043	0.0623	0.151	0.19	0.30
8	3/19/78	12	38	0.046	0.0708	0.171	0.25	0.37
8	3/19/78	12	48	0.049	0.0793	0.192	0.28	0.40
8	3/19/78	13	5	0.055	0.0963	0.233	0.34	0.46
8	3/19/78	13	20	0.061	0.1133	0.274	0.41	0.52
8	3/19/78	13	36	0.067	0.2039	0.493	0.51	0.62
8	3/19/78	13	51	0.073	0.2945	0.712	0.66	0.77
8	3/19/78	14	8	0.079	0.3851	0.930	0.89	1.01
8	3/19/78	14	23	0.085	0.4757	1.149	1.15	1.27
8	3/19/78	14	39	0.091	0.5663	1.368	1.49	1.60
8	3/19/78	14	56	0.098	0.6173	1.491	1.89	2.01
8	3/19/78	15	12	0.104	0.6683	1.615	2.31	2.42
8	3/19/78	15	28	0.110	0.7192	1.738	2.75	2.87
8	3/19/78	15	44	0.116	0.7702	1.861	3.23	3.35
8	3/19/78	16	1	0.122	0.8212	1.984	3.78	3.89
8	3/19/78	16	5	0.125	0.8368	2.022	3.91	4.03
8	3/19/78	16	8	0.119	0.7957	1.923	4.01	4.13
8	3/19/78	16	13	0.116	0.7702	1.861	4.17	4.28
8	3/19/78	16	19	0.113	0.7447	1.799	4.35	4.47
8	3/19/78	16	24	0.110	0.7192	1.738	4.50	4.61
8	3/19/78	16	36	0.110	0.7192	1.738	4.84	4.96
8	3/19/78	16	40	0.107	0.6938	1.676	4.96	5.07
8	3/19/78	16	52	0.104	0.6683	1.615	5.29	5.40
8	3/19/78	17	2	0.101	0.6428	1.553	5.55	5.67
8	3/19/78	17	15	0.098	0.6173	1.491	5.88	6.00
8	3/19/78	17	30	0.094	0.5918	1.430	6.25	6.36
8	3/19/78	17	37	0.091	0.5663	1.368	6.41	6.53
8	3/19/78	17	52	0.088	0.5210	1.259	6.74	6.85
8	3/19/78	18	1	0.085	0.4757	1.149	6.92	7.04
8	3/19/78	18	10	0.082	0.4304	1.040	7.08	7.20
8	3/19/78	18	13	0.082	0.4304	1.040	7.13	7.25
8	3/19/78	18	18	0.079	0.3851	0.930	7.22	7.33
8	3/19/78	18	27	0.076	0.3398	0.821	7.35	7.46
8	3/19/78	18	38	0.073	0.2945	0.712	7.49	7.61
8	3/19/78	18	49	0.070	0.2492	0.602	7.61	7.73
8	3/19/78	18	58	0.067	0.2039	0.493	7.69	7.81
8	3/19/78	19	10	0.064	0.1586	0.383	7.78	7.90
8	3/19/78	19	20	0.064	0.1586	0.383	7.84	7.96
8	3/19/78	19	50	0.061	0.1133	0.274	8.01	8.12
8	3/19/78	21	40	0.058	0.1048	0.253	8.49	8.61
8	3/19/78	23	8	0.055	0.0963	0.233	8.85	8.96
8	3/20/78	0	1	0.052	0.0878	0.212	9.04	9.16
8	3/20/78	8	51	0.052	0.0878	0.212	10.92	11.03
8	3/20/78	9	4	0.055	0.0963	0.233	10.96	11.08
8	3/20/78	9	13	0.058	0.1048	0.253	11.00	11.12
8	3/20/78	9	36	0.058	0.1048	0.253	11.10	11.21
8	3/20/78	9	40	0.055	0.0963	0.233	11.11	11.23
8	3/20/78	9	47	0.052	0.0878	0.212	11.14	11.26
8	3/20/78	10	0	0.049	0.0793	0.192	11.18	11.30
8	3/20/78	10	5	0.052	0.0878	0.212	11.20	11.32
8	3/20/78	10	36	0.055	0.0963	0.233	11.32	11.43
8	3/20/78	11	0	0.052	0.0878	0.212	11.40	11.52
8	3/20/78	11	3	0.049	0.0793	0.192	11.41	11.53
8	3/20/78	11	6	0.052	0.0878	0.212	11.42	11.54
8	3/20/78	11	18	0.055	0.0963	0.233	11.47	11.59
8	3/20/78	11	41	0.058	0.1048	0.253	11.56	11.68
8	3/20/78	12	24	0.061	0.1133	0.274	11.75	11.87
8	3/20/78	12	53	0.064	0.1586	0.383	11.91	12.03
8	3/20/78	13	0	0.064	0.1586	0.383	11.95	12.07
8	3/20/78	13	10	0.067	0.2039	0.493	12.03	12.14
8	3/20/78	13	17	0.070	0.2492	0.602	12.09	12.21
8	3/20/78	13	23	0.073	0.2945	0.712	12.16	12.27
8	3/20/78	14	10	0.073	0.2945	0.712	12.71	12.83
8	3/20/78	14	26	0.076	0.3398	0.821	12 92	13.03
8	3/20/78	14	31	0.079	0.3851	0.930	12.99	13.11
8	3/20/78	14	39	0.079	0.3851	0.930	13.12	13.23
8	3/20/78	14	48	0.076	0.3398	0.821	13.25	13.36
8	3/20/78	15	33	0.076	0.3398	0.821	13.86	13.98
8	3/20/78	15	43	0.079	0.3851	0.930	14.01	14.12
8	3/20/78	16	10	0.079	0.3851	0.930	14.43	14.54
8	3/20/78	16	20	0.082	0.4304	1.040	14.59	14.71
8	3/20/78	16	47	0.079	0.3851	0.930	15.03	15.15
8	3/20/78	17	24	0.079	0.3851	0.930	15.61	15.72
8	3/20/78	17	45	0.076	0.3398	0.821	15.91	16.03
8	3/20/78	18	24	0.073	0.2945	0.712	16.41	16.53
8	3/20/78	18	48	0.070	0.2492	0.602	16.66	16.79
8	3/20/78	19	18	0.067	0.2039	0.493	16.95	17.07
8	3/20/78	20	0	0.064	0.1586	0.383	17.26	17.37
8	3/20/78	20	35	0.061	0.1133	0.274	17.45	17.56
8	3/20/78	21	10	0.058	0.1048	0.253	17.60	17.72
8	3/20/78	21	28	0.055	0.0963	0.233	17 67	17.79
8	3/20/78	22	13	0.052	0.0878	0.212	17.84	17.96
8	3/20/78	23	19	0.049	0.0793	0.192	18.06	18.18
8	3/20/78	23	54	0.046	0.0708	0.171	18.17	18.28
8	3/21/78	0	45	0.043	0.0623	0.151	18.31	18.42
8	3/21/78	1	53	0.040	0.0538	0.130	18.46	18.58

TABLE D1-15. CONTINUED

SITE	DATE	HOUR	MIN	STAGE M	RUNOFF RATE CMS	RUNOFF INTENSITY MMPH	STORM RUNOFF MM	ANNUAL RUNOFF MM
8	3/21/78	2	27	0.037	0.0453	0.109	18.53	18.65
8	3/21/78	2	47	0.034	0.0368	0.089	18.57	18.68
8	3/21/78	3	4	0.030	0.0283	0.068	18.59	18.70
8	3/21/78	3	46	0.027	0.0255	0.062	18.63	18.75
8	3/21/78	4	20	0.024	0.0227	0.055	18.67	18.78
8	3/21/78	4	33	0.021	0.0198	0.048	18.68	18.79
8	3/21/78	4	52	0.018	0.0170	0.041	18.69	18.81
8	3/21/78	5	8	0.015	0.0142	0.034	18.70	18.82
8	3/21/78	5	25	0.012	0.0113	0.027	18.71	18.83
8	3/21/78	6	28	0.009	0.0085	0.021	18.73	18.85
8	3/21/78	6	46	0.009	0.0085	0.021	18.74	18.86
8	3/21/78	7	16	0.012	0.0113	0.027	18.75	18.87
8	3/21/78	7	43	0.015	0.0142	0.034	18.77	18.88
8	3/21/78	7	49	0.018	0.0170	0.041	18.77	18.89
8	3/21/78	7	59	0.021	0.0198	0.048	18.78	18.89
8	3/21/78	8	4	0.024	0.0227	0.055	18.78	18.90
8	3/21/78	8	8	0.030	0.0283	0.068	18.79	18.90
8	3/21/78	8	12	0.037	0.0453	0.109	18.79	18.91
8	3/21/78	8	15	0.040	0.0538	0.130	18.80	18.91
8	3/21/7.	8	24	0.040	0.0538	0.130	18.82	18.93
8	3/21/78	8	26	0.037	0.0453	0.109	18.82	18.94
8	3/21/78	8	33	0.040	0.0538	0.130	18.84	18.95
8	3/21/78	8	51	0.040	0.0538	0.130	18.87	18.99
8	3/21/78	9	2	0.037	0.0453	0.109	18.90	19.01
8	3/21/78	9	10	0.034	0.0368	0.089	18.91	19.03
8	3/21/78	9	20	0.030	0.0283	0.068	18.92	19.04
8	3/21/78	9	49	0.027	0.0255	0.062	18.95	19.07
8	3/21/78	10	19	0.027	0.0255	0.062	18.99	19.10
8	3/21/78	10	49	0.030	0.0283	0.068	19.02	19.13
8	3/21/78	11	1	0.034	0.0368	0.089	19.03	19.15
8	3/21/78	11	11	0.037	0.0453	0.109	19.05	19.17
8	3/21/78	11	32	0.040	0.0538	0.130	19.09	19.21
8	3/21/78	11	43	0.043	0.0623	0.151	19.12	19.23
8	3/21/78	11	48	0.046	0.0708	0.171	19.13	19.25
8	3/21/78	11	54	0.049	0.0793	0.192	19.15	19.27
8	3/21/78	12	3	0.052	0.0878	0.212	19.18	19.30
8	3/21/78	12	13	0.055	0.0963	0.233	19.22	19.33
8	3/21/78	12	28	0.058	0.1048	0.253	19.28	19.39
8	3/21/78	12	37	0.061	0.1133	0.274	19.32	19.43
8	3/21/78	12	45	0.064	0.1586	0.383	19.36	19.48
8	3/21/78	12	53	0.067	0.2039	0.493	19.42	19.53
8	3/21/78	12	57	0.070	0.2492	0.602	19.46	19.57
8	3/21/78	13	7	0.073	0.2945	0.712	19.56	19.68
8	3/21/78	13	15	0.076	0.3398	0.821	19.67	19.78
8	3/21/78	13	22	0.079	0.3851	0.930	19.77	19.89
8	3/21/78	13	24	0.082	0.4304	1.040	19.80	19.92
8	3/21/78	13	44	0.085	0.4757	1.149	20.17	20.28
8	3/21/78	14	4	0.088	0.5210	1.259	20.57	20.68
8	3/21/78	14	10	0.091	0.5663	1.368	20.70	20.82
8	3/21/78	14	16	0.094	0.5918	1.430	20.84	20.96
8	3/21/78	14	36	0.091	0.5663	1.368	21.31	21.42
8	3/21/78	15	42	0.091	0.5663	1.368	22.81	22.93
8	3/21/78	15	57	0.088	0.5210	1.259	23.14	23.26
8	3/21/78	16	5	0.085	0.4757	1.149	23.30	23.42
8	3/21/78	16	16	0.082	0.4304	1.040	23.50	23.62
8	3/21/78	16	38	0.079	0.3851	0.930	23.86	23.98
8	3/21/78	16	57	0.076	0.3398	0.821	24.14	24.26
8	3/21/78	17	20	0.073	0.2945	0.712	24.43	24.55
8	3/21/78	17	32	0.067	0.2039	0.493	24.55	24.67
8	3/21/78	17	39	0.064	0.1586	0.383	24.60	24.72
8	3/21/78	18	1	0.061	0.1133	0.274	24.72	24.84
8	3/21/78	18	28	0.058	0.1048	0.253	24.84	24.96
8	3/21/78	18	49	0.055	0.0963	0.233	24.93	25.04
8	3/21/78	18	58	0.052	0.0878	0.212	24.96	25.08
8	3/21/78	19	32	0.049	0.0793	0.192	25.08	25.19
8	3/21/78	19	58	0.046	0.0708	0.171	25.15	25.27
8	3/21/78	20	25	0.043	0.0623	0.151	25.23	25.34
8	3/21/78	20	56	0.040	0.0538	0.130	25.30	25.42
8	3/21/78	21	20	0.037	0.0453	0.109	25.35	25.46
8	3/21/78	21	43	0.034	0.0368	0.089	25.38	25.50
8	3/21/78	22	20	0.030	0.0283	0.068	25.43	25.55
8	3/21/78	22	46	0.027	0.0255	0.062	25.46	25.58
8	3/21/78	23	41	0.024	0.0227	0.055	25.51	25.63
8	3/22/78	1	26	0.024	0.0227	0.055	0.10	25.73
8	3/22/78	3	18	0.021	0.0198	0.048	0.19	25.82
8	3/22/78	4	11	0.018	0.0170	0.041	0.23	25.86
8	3/22/78	4	25	0.018	0.0170	0.041	0.24	25.87
8	3/22/78	5	20	0.021	0.0198	0.048	0.28	25.91
8	3/22/78	5	41	0.021	0.0198	0.048	0.30	25.93
8	3/22/78	6	14	0.018	0.0170	0.041	0.32	25.95
8	3/22/78	6	34	0.015	0.0142	0.034	0.33	25.97
8	3/22/78	7	0	0.012	0.0113	0.027	0.35	25.98
8	3/22/78	7	56	0.009	0.0085	0.021	0.37	26.00
8	3/22/78	9	20	0.006	0.0057	0.014	0.39	26.03
8	3/22/78	10	10	0.006	0.0057	0.014	0.41	26.04
8	3/22/78	10	48	0.009	0.0085	0.021	0.42	26.05
8	3/22/78	11	11	0.012	0.0113	0.027	0.43	26.06
8	3/22/78	11	35	0.015	0.0142	0.034	0.44	26.07
8	3/22/78	11	39	0.018	0.0170	0.041	0.44	26.07
8	3/22/78	11	51	0.021	0.0198	0.048	0.45	26.08
8	3/22/78	11	54	0.024	0.0227	0.055	0.45	26.08
8	3/22/78	12	2	0.027	0.0255	0.062	0.46	26.09
8	3/22/78	12	9	0.030	0.0283	0.068	0.47	26.10
8	3/22/78	12	18	0.034	0.0368	0.089	0.48	26.11
8	3/22/78	12	28	0.037	0.0453	0.109	0.50	26.13
8	3/22/78	12	36	0.040	0.0538	0.130	0.51	26.14
8	3/22/78	12	41	0.043	0.0623	0.151	0.52	26.15
8	3/22/78	12	47	0.046	0.0708	0.171	0.54	26.17
8	3/22/78	12	55	0.049	0.0793	0.192	0.56	26.19
8	3/22/78	13	7	0.052	0.0878	0.212	0.60	26.24
8	3/22/78	13	19	0.055	0.0963	0.233	0.65	26.28
8	3/22/78	14	20	0.058	0.1048	0.253	0.90	26.53

TABLE D1-15. CONTINUED

SITE	DATE	HOUR	MIN	STAGE M	RUNOFF RATE CMS	RUNOFF INTENSITY MMPH	STORM RUNOFF MM	ANNUAL RUNOFF MM
8	3/22/78	14	44	0.055	0.0963	0.233	0.10	26.62
8	3/22/78	15	8	0.055	0.0963	0.233	0.19	26.72
8	3/22/78	15	50	0.052	0.0878	0.212	0.35	26.87
8	3/22/78	16	27	0.049	0.0793	0.192	0.47	27.00
8	3/22/78	16	49	0.046	0.0708	0.171	0.54	27.06
8	3/22/78	17	10	0.043	0.0623	0.151	0.59	27.12
8	3/22/78	17	29	0.040	0.0538	0.130	0.64	27.16
8	3/22/78	17	48	0.037	0.0453	0.109	0.68	27.20
8	3/22/78	18	27	0.034	0.0368	0.089	0.74	27.27
8	3/22/78	19	0	0.030	0.0283	0.068	0.78	27.31
8	3/22/78	19	15	0.030	0.0283	0.068	0.80	27.33
8	3/22/78	19	35	0.027	0.0255	0.062	0.82	27.35
8	3/22/78	20	1	0.024	0.0227	0.055	0.85	27.37
8	3/22/78	20	44	0.021	0.0198	0.048	0.88	27.41
8	3/22/78	21	13	0.018	0.0170	0.041	0.91	27.43
8	3/22/78	21	31	0.015	0.0142	0.034	0.92	27.44
8	3/22/78	21	42	0.012	0.0113	0.027	0.92	27.45
8	3/23/78	1	0	0.009	0.0085	0.021	0.08	27.53
8	3/23/78	2	12	0.006	0.0057	0.014	0.10	27.55
8	3/23/78	3	8	0.003	0.0028	0.007	0.11	27.56
8	3/23/78	4	0	0.0	0.0	0.0	0.11	27.56
8	3/23/78	14	30	0.0	0.0	0.0	0.11	27.56
8	3/23/78	18	0	0.003	0.0028	0.007	0.12	27.57
8	3/23/78	21	0	0.0	0.0	0.0	0.13	27.58
8	4/ 5/78	17	46	0.0	0.0	0.0	0.0	27.58
8	4/ 5/78	17	47	0.003	0.0003	0.001	0.00	27.58
8	4/ 5/78	17	48	0.006	0.0006	0.001	0.00	27.58
8	4/ 5/78	17	49	0.009	0.0008	0.002	0.00	27.58
8	4/ 5/78	17	50	0.012	0.0011	0.003	0.00	27.58
8	4/ 5/78	17	51	0.018	0.0017	0.004	0.00	27.58
8	4/ 5/78	17	52	0.024	0.0023	0.005	0.00	27.58
8	4/ 5/78	17	53	0.027	0.0025	0.006	0.00	27.58
8	4/ 5/78	17	54	0.030	0.0028	0.007	0.00	27.58
8	4/ 5/78	17	55	0.037	0.0034	0.008	0.00	27.58
8	4/ 5/78	17	56	0.040	0.0037	0.009	0.00	27.58
8	4/ 5/78	18	1	0.040	0.0037	0.009	0.00	27.58
8	4/ 5/78	18	3	0.043	0.0040	0.010	0.00	27.58
8	4/ 5/78	18	4	0.046	0.0042	0.010	0.00	27.58
8	4/ 5/78	18	5	0.049	0.0045	0.011	0.00	27.59
8	4/ 5/78	18	6	0.052	0.0048	0.012	0.00	27.59
8	4/ 5/78	18	8	0.055	0.0051	0.012	0.00	27.59
8	4/ 5/78	18	10	0.058	0.0054	0.013	0.00	27.59
8	4/ 5/78	18	14	0.061	0.0057	0.014	0.00	27.59
8	4/ 5/78	18	17	0.064	0.0062	0.015	0.00	27.59
8	4/ 5/78	18	21	0.067	0.0068	0.016	0.01	27.59
8	4/ 5/78	18	23	0.070	0.0074	0.018	0.01	27.59
8	4/ 5/78	18	24	0.073	0.0079	0.019	0.01	27.59
8	4/ 5/78	18	25	0.082	0.0096	0.023	0.01	27.59
8	4/ 5/78	18	26	0.088	0.0108	0.026	0.01	27.59
8	4/ 5/78	18	27	0.091	0.0113	0.027	0.01	27.59
8	4/ 5/78	18	28	0.094	0.0122	0.029	0.01	27.59
8	4/ 5/78	18	29	0.101	0.0139	0.034	0.01	27.59
8	4/ 5/78	18	31	0.104	0.0147	0.036	0.01	27.59
8	4/ 5/78	18	36	0.107	0.0156	0.038	0.01	27.60
8	4/ 5/78	18	39	0.110	0.0164	0.040	0.01	27.60
8	4/ 5/78	18	40	0.113	0.0173	0.042	0.02	27.60
8	4/ 5/78	18	41	0.125	0.0204	0.049	0.02	27.60
8	4/ 5/78	18	42	0.128	0.0210	0.051	0.02	27.60
8	4/ 5/78	18	43	0.134	0.0221	0.053	0.02	27.60
8	4/ 5/78	18	44	0.137	0.0227	0.055	0.02	27.60
8	4/ 5/78	18	46	0.140	0.0232	0.056	0.02	27.60
8	4/ 5/78	18	47	0.155	0.0354	0.086	0.02	27.60
8	4/ 5/78	18	48	0.158	0.0453	0.109	0.02	27.61
8	4/ 5/78	19	2	0.158	0.0453	0.109	0.05	27.63
8	4/ 5/78	19	44	0.155	0.0354	0.086	0.12	27.70
8	4/ 5/78	19	59	0.152	0.0255	0.062	0.14	27.72
8	4/ 5/78	20	3	0.149	0.0249	0.060	0.14	27.72
8	4/ 5/78	20	6	0.146	0.0244	0.059	0.14	27.73
8	4/ 5/78	20	9	0.143	0.0238	0.057	0.15	27.73
8	4/ 5/78	20	12	0.140	0.0232	0.056	0.15	27.73
8	4/ 5/78	20	15	0.137	0.0227	0.055	0.15	27.73
8	4/ 5/78	20	17	0.134	0.0221	0.053	0.15	27.74
8	4/ 5/78	20	19	0.131	0.0215	0.052	0.15	27.74
8	4/ 5/78	20	21	0.128	0.0210	0.051	0.16	27.74
8	4/ 5/78	20	23	0.125	0.0204	0.049	0.16	27.74
8	4/ 5/78	20	25	0.122	0.0198	0.048	0.16	27.74
8	4/ 5/78	20	27	0.119	0.0190	0.046	0.16	27.74
8	4/ 5/78	20	28	0.116	0.0181	0.044	0.16	27.74
8	4/ 5/78	20	31	0.113	0.0173	0.042	0.16	27.75
8	4/ 5/78	20	33	0.110	0.0164	0.040	0.17	27.75
8	4/ 5/78	20	35	0.107	0.0156	0.038	0.17	27.75
8	4/ 5/78	20	36	0.104	0.0147	0.036	0.17	27.75
8	4/ 5/78	20	38	0.101	0.0139	0.034	0.17	27.75
8	4/ 5/78	20	39	0.098	0.0130	0.031	0.17	27.75
8	4/ 5/78	20	40	0.094	0.0122	0.029	0.17	27.75
8	4/ 5/78	20	41	0.091	0.0113	0.027	0.17	27.75
8	4/ 5/78	20	42	0.088	0.0108	0.026	0.17	27.75
8	4/ 5/78	20	43	0.085	0.0102	0.025	0.17	27.75
8	4/ 5/78	20	44	0.082	0.0096	0.023	0.17	27.75
8	4/ 5/78	20	46	0.079	0.0091	0.022	0.17	27.76
8	4/ 5/78	20	48	0.076	0.0085	0.021	0.17	27.76
8	4/ 5/78	20	52	0.073	0.0079	0.019	0.17	27.76
8	4/ 5/78	20	59	0.070	0.0074	0.018	0.18	27.76
8	4/ 5/78	21	7	0.067	0.0068	0.016	0.18	27.76
8	4/ 5/78	21	17	0.064	0.0062	0.015	0.18	27.76
8	4/ 5/78	21	28	0.061	0.0057	0.014	0.18	27.77
8	4/ 5/78	21	44	0.058	0.0054	0.013	0.19	27.77
8	4/ 5/78	21	45	0.055	0.0051	0.012	0.19	27.77
8	4/ 5/78	21	53	0.052	0.0048	0.012	0.19	27.77
8	4/ 5/78	22	5	0.049	0.0045	0.011	0.19	27.77

TABLE D1-15. CONTINUED

SITE	DATE	HOUR	MIN	STAGE M	RUNOFF RATE CMS	RUNOFF INTENSITY MMPH	STORM RUNOFF MM	ANNUAL RUNOFF MM
8	4/ 5/78	22	15	0.046	0.0042	0.010	0.19	27.78
8	4/ 5/78	22	31	0.043	0.0040	0.010	0.20	27.78
8	4/ 5/78	22	44	0.043	0.0040	0.010	0.20	27.78
8	4/ 5/78	23	0	0.040	0.0037	0.009	0.20	27.78
8	4/ 5/78	23	16	0.037	0.0034	0.008	0.20	27.79
8	4/ 5/78	23	25	0.037	0.0034	0.008	0.20	27.79
8	4/ 5/78	23	28	0.040	0.0037	0.009	0.20	27.79
8	4/ 5/78	23	33	0.043	0.0040	0.010	0.21	27.79
8	4/ 5/78	23	43	0.040	0.0037	0.009	0.21	27.79
8	4/ 5/78	23	46	0.043	0.0040	0.010	0.21	27.79
8	4/ 5/78	23	48	0.046	0.0042	0.010	0.21	27.79
8	4/ 5/78	23	50	0.049	0.0045	0.011	0.21	27.79
8	4/ 5/78	23	53	0.052	0.0048	0.012	0.21	27.79
8	4/ 5/78	23	55	0.049	0.0045	0.011	0.21	27.79
8	4/ 5/78	23	59	0.052	0.0048	0.012	0.21	27.79
8	4/ 6/78	0	4	0.055	0.0051	0.012	0.21	27.79
8	4/ 6/78	0	15	0.058	0.0054	0.013	0.21	27.80
8	4/ 6/78	0	18	0.061	0.0057	0.014	0.21	27.80
8	4/ 6/78	0	20	0.064	0.0062	0.015	0.21	27.80
8	4/ 6/78	0	24	0.067	0.0068	0.016	0.22	27.80
8	4/ 6/78	0	28	0.067	0.0068	0.016	0.22	27.80
8	4/ 6/78	0	38	0.064	0.0062	0.015	0.22	27.80
8	4/ 6/78	0	49	0.064	0.0062	0.015	0.22	27.80
8	4/ 6/78	1	5	0.061	0.0057	0.014	0.23	27.81
8	4/ 6/78	1	21	0.058	0.0054	0.013	0.23	27.81
8	4/ 6/78	1	41	0.055	0.0051	0.012	0.23	27.82
8	4/ 6/78	2	11	0.052	0.0048	0.012	0.24	27.82
8	4/ 6/78	2	32	0.052	0.0048	0.012	0.24	27.83
8	4/ 6/78	2	57	0.049	0.0045	0.011	0.25	27.83
8	4/ 6/78	3	18	0.046	0.0042	0.010	0.25	27.83
8	4/ 6/78	3	40	0.043	0.0040	0.010	0.26	27.84
8	4/ 6/78	3	59	0.040	0.0037	0.009	0.26	27.84
8	4/ 6/78	4	20	0.037	0.0034	0.008	0.26	27.84
8	4/ 6/78	4	42	0.034	0.0031	0.008	0.26	27.85
8	4/ 6/78	5	0	0.030	0.0028	0.007	0.27	27.85
8	4/ 6/78	5	19	0.027	0.0025	0.006	0.27	27.85
8	4/ 6/78	5	35	0.024	0.0023	0.005	0.27	27.85
8	4/ 6/78	6	27	0.021	0.0020	0.005	0.27	27.86
8	4/ 6/78	6	56	0.018	0.0017	0.004	0.28	27.86
8	4/ 6/78	7	34	0.015	0.0014	0.003	0.28	27.86
8	4/ 6/78	8	0	0.012	0.0011	0.003	0.28	27.86
8	4/ 6/78	8	50	0.009	0.0008	0.002	0.28	27.86
8	4/ 6/78	9	16	0.006	0.0006	0.001	0.28	27.87
8	4/ 6/78	9	41	0.003	0.0003	0.001	0.28	27.87
8	4/ 6/78	10	0	0.0	0.0	0.0	0.28	27.87
8	4/ 9/78	18	12	0.0	0.0	0.0	0.0	27.87
8	4/ 9/78	18	13	0.009	0.0008	0.002	0.00	27.87
8	4/ 9/78	18	14	0.018	0.0017	0.004	0.00	27.87
8	4/ 9/78	18	15	0.024	0.0023	0.005	0.00	27.87
8	4/ 9/78	18	16	0.027	0.0025	0.006	0.00	27.87
8	4/ 9/78	18	17	0.034	0.0031	0.008	0.00	27.87
8	4/ 9/78	18	18	0.037	0.0034	0.008	0.00	27.87
8	4/ 9/78	18	19	0.043	0.0040	0.010	0.00	27.87
8	4/ 9/78	18	20	0.046	0.0042	0.010	0.00	27.87
8	4/ 9/78	18	21	0.049	0.0045	0.011	0.00	27.87
8	4/ 9/78	18	22	0.052	0.0048	0.012	0.00	27.87
8	4/ 9/78	18	23	0.055	0.0051	0.012	0.00	27.87
8	4/ 9/78	18	27	0.058	0.0054	0.013	0.00	27.87
8	4/ 9/78	18	28	0.079	0.0091	0.022	0.00	27.87
8	4/ 9/78	18	29	0.125	0.0204	0.049	0.00	27.87
8	4/ 9/78	18	30	0.165	0.0651	0.157	0.00	27.87
8	4/ 9/78	18	31	0.174	0.0949	0.229	0.01	27.87
8	4/ 9/78	18	34	0.177	0.1048	0.253	0.02	27.89
8	4/ 9/78	18	39	0.174	0.0949	0.229	0.04	27.91
8	4/ 9/78	18	43	0.171	0.0850	0.205	0.05	27.92
8	4/ 9/78	18	46	0.174	0.0949	0.229	0.07	27.93
8	4/ 9/78	18	48	0.177	0.1048	0.253	0.07	27.94
8	4/ 9/78	18	51	0.180	0.1147	0.277	0.09	27.95
8	4/ 9/78	18	54	0.183	0.1246	0.301	0.10	27.97
8	4/ 9/78	18	59	0.180	0.1147	0.277	0.13	27.99
8	4/ 9/78	19	0	0.183	0.1246	0.301	0.13	28.00
8	4/ 9/78	19	2	0.186	0.1419	0.343	0.14	28.01
8	4/ 9/78	19	4	0.189	0.1591	0.385	0.15	28.02
8	4/ 9/78	19	6	0.186	0.1419	0.343	0.17	28.03
8	4/ 9/78	19	9	0.183	0.1246	0.301	0.18	28.05
8	4/ 9/78	19	22	0.183	0.1246	0.301	0.25	28.11
8	4/ 9/78	19	27	0.180	0.1147	0.277	0.27	28.14
8	4/ 9/78	19	32	0.177	0.1048	0.253	0.29	28.16
8	4/ 9/78	19	37	0.174	0.0949	0.229	0.31	28.18
8	4/ 9/78	19	42	0.171	0.0850	0.205	0.33	28.20
8	4/ 9/78	19	48	0.168	0.0750	0.181	0.35	28.22
8	4/ 9/78	19	58	0.165	0.0651	0.157	0.38	28.24
8	4/ 9/78	20	7	0.162	0.0552	0.133	0.40	28.27
8	4/ 9/78	20	18	0.158	0.0453	0.109	0.42	28.29
8	4/ 9/78	20	28	0.155	0.0354	0.086	0.44	28.30
8	4/ 9/78	20	33	0.152	0.0255	0.062	0.44	28.31
8	4/ 9/78	20	35	0.149	0.0249	0.060	0.45	28.31
8	4/ 9/78	20	37	0.146	0.0244	0.059	0.45	28.31
8	4/ 9/78	20	39	0.143	0.0238	0.057	0.45	28.32
8	4/ 9/78	20	41	0.140	0.0232	0.056	0.45	28.32
8	4/ 9/78	20	43	0.137	0.0227	0.055	0.45	28.32
8	4/ 9/78	20	45	0.134	0.0221	0.053	0.46	28.32
8	4/ 9/78	20	47	0.131	0.0215	0.052	0.46	28.32
8	4/ 9/78	20	49	0.128	0.0210	0.051	0.46	28.33
8	4/ 9/78	20	51	0.125	0.0204	0.049	0.46	28.33
8	4/ 9/78	20	53	0.122	0.0198	0.048	0.46	28.33
8	4/ 9/78	20	56	0.119	0.0190	0.046	0.47	28.33
8	4/ 9/78	20	58	0.116	0.0181	0.044	0.47	28.33
8	4/ 9/78	21	1	0.113	0.0173	0.042	0.47	28.33
8	4/ 9/78	21	4	0.110	0.0164	0.040	0.47	28.34
8	4/ 9/78	21	6	0.107	0.0156	0.038	0.47	28.34
8	4/ 9/78	21	10	0.104	0.0147	0.036	0.47	28.34

TABLE D1-15. CONTINUED

SITE	DATE	HOUR	MIN	STAGE M	RUNOFF RATE CMS	RUNOFF INTENSITY MMPH	STORM RUNOFF MM	ANNUAL RUNOFF MM
8	4/ 9/78	21	15	0.101	0.0139	0.034	0.48	28.34
8	4/ 9/78	21	17	0.098	0.0130	0.031	0.48	28.34
8	4/ 9/78	21	21	0.094	0.0122	0.029	0.48	28.35
8	4/ 9/78	21	24	0.091	0.0113	0.027	0.48	28.35
8	4/ 9/78	21	29	0.088	0.0108	0.026	0.48	28.35
8	4/ 9/78	21	33	0.085	0.0102	0.025	0.49	28.35
8	4/ 9/78	21	38	0.082	0.0096	0.023	0.49	28.35
8	4/ 9/78	21	43	0.079	0.0091	0.022	0.49	28.36
8	4/ 9/78	21	49	0.076	0.0085	0.021	0.49	28.36
8	4/ 9/78	21	57	0.073	0.0079	0.019	0.49	28.36
8	4/ 9/78	22	6	0.070	0.0074	0.018	0.50	28.36
8	4/ 9/78	22	14	0.067	0.0068	0.016	0.50	28.37
8	4/ 9/78	22	24	0.064	0.0062	0.015	0.50	28.37
8	4/ 9/78	22	30	0.061	0.0057	0.014	0.50	28.37
8	4/ 9/78	22	40	0.058	0.0054	0.013	0.51	28.37
8	4/ 9/78	22	53	0.055	0.0051	0.012	0.51	28.37
8	4/ 9/78	23	7	0.052	0.0048	0.012	0.51	28.38
8	4/ 9/78	23	20	0.049	0.0045	0.011	0.51	28.38
8	4/ 9/78	23	37	0.046	0.0042	0.010	0.52	28.38
8	4/ 9/78	23	55	0.043	0.0040	0.010	0.52	28.39
8	4/10/78	0	15	0.040	0.0037	0.009	0.52	28.39
8	4/10/78	0	32	0.037	0.0034	0.008	0.53	28.39
8	4/10/78	0	51	0.034	0.0031	0.008	0.53	28.39
8	4/10/78	1	9	0.030	0.0028	0.007	0.53	28.40
8	4/10/78	1	24	0.027	0.0025	0.006	0.53	28.40
8	4/10/78	1	38	0.024	0.0023	0.005	0.53	28.40
8	4/10/78	1	47	0.021	0.0020	0.005	0.53	28.40
8	4/10/78	1	59	0.018	0.0017	0.004	0.53	28.40
8	4/10/78	2	20	0.015	0.0014	0.003	0.54	28.40
8	4/10/78	2	46	0.012	0.0011	0.003	0.54	28.40
8	4/10/78	3	40	0.009	0.0008	0.002	0.54	28.40
8	4/10/78	4	30	0.006	0.0006	0.001	0.54	28.41
8	4/10/78	5	27	0.003	0.0003	0.001	0.54	28.41
8	4/10/78	5	29	0.0	0.0	0.0	0.54	28.41
8	4/17/78	13	50	0.0	0.0	0.0	0.0	28.41
8	4/17/78	13	51	0.003	0.0003	0.001	0.00	28.41
8	4/17/78	13	52	0.006	0.0006	0.001	0.00	28.41
8	4/17/78	13	53	0.009	0.0008	0.002	0.00	28.41
8	4/17/78	13	55	0.012	0.0011	0.003	0.00	28.41
8	4/17/78	13	56	0.015	0.0014	0.003	0.00	28.41
8	4/17/78	13	58	0.018	0.0017	0.004	0.00	28.41
8	4/17/78	13	59	0.021	0.0020	0.005	0.00	28.41
8	4/17/78	14	0	0.024	0.0023	0.005	0.00	28.41
8	4/17/78	14	1	0.027	0.0025	0.006	0.00	28.41
8	4/17/78	14	2	0.030	0.0028	0.007	0.00	28.41
8	4/17/78	14	3	0.034	0.0031	0.008	0.00	28.41
8	4/17/78	14	4	0.037	0.0034	0.008	0.00	28.41
8	4/17/78	14	5	0.040	0.0037	0.009	0.00	28.41
8	4/17/78	14	6	0.043	0.0040	0.010	0.00	28.41
8	4/17/78	14	7	0.064	0.0062	0.015	0.00	28.41
8	4/17/78	14	8	0.085	0.0102	0.025	0.00	28.41
8	4/17/78	14	9	0.110	0.0164	0.040	0.00	28.41
8	4/17/78	14	10	0.122	0.0198	0.048	0.00	28.41
8	4/17/78	14	11	0.134	0.0221	0.053	0.00	28.41
8	4/17/78	14	12	0.140	0.0232	0.056	0.00	28.41
8	4/17/78	14	13	0.146	0.0244	0.059	0.01	28.41
8	4/17/78	14	14	0.149	0.0249	0.060	0.01	28.41
8	4/17/78	14	16	0.152	0.0255	0.062	0.01	28.42
8	4/17/78	14	23	0.152	0.0255	0.062	0.02	28.42
8	4/17/78	14	24	0.155	0.0354	0.086	0.02	28.42
8	4/17/78	14	26	0.158	0.0453	0.109	0.02	28.43
8	4/17/78	14	32	0.162	0.0552	0.133	0.03	28.44
8	4/17/78	14	37	0.165	0.0651	0.157	0.04	28.45
8	4/17/78	14	43	0.168	0.0750	0.181	0.06	28.47
8	4/17/78	14	46	0.171	0.0850	0.205	0.07	28.48
8	4/17/78	14	53	0.171	0.0850	0.205	0.10	28.50
8	4/17/78	14	54	0.174	0.0949	0.229	0.10	28.51
8	4/17/78	14	55	0.177	0.1048	0.253	0.10	28.51
8	4/17/78	14	56	0.180	0.1147	0.277	0.11	28.51
8	4/17/78	15	2	0.183	0.1246	0.301	0.14	28.54
8	4/17/78	15	23	0.183	0.1246	0.301	0.24	28.65
8	4/17/78	15	29	0.186	0.1419	0.343	0.27	28.68
8	4/17/78	15	33	0.186	0.1419	0.343	0.30	28.70
8	4/17/78	15	37	0.183	0.1246	0.301	0.32	28.73
8	4/17/78	15	45	0.180	0.1147	0.277	0.36	28.76
8	4/17/78	15	49	0.180	0.1147	0.277	0.38	28.78
8	4/17/78	15	52	0.183	0.1246	0.301	0.39	28.80
8	4/17/78	15	57	0.186	0.1419	0.343	0.42	28.82
8	4/17/78	15	59	0.186	0.1419	0.343	0.43	28.83
8	4/17/78	16	5	0.183	0.1246	0.301	0.46	28.87
8	4/17/78	16	11	0.180	0.1147	0.277	0.49	28.90
8	4/17/78	16	16	0.177	0.1048	0.253	0.51	28.92
8	4/17/78	16	24	0.174	0.0949	0.229	0.54	28.95
8	4/17/78	16	36	0.171	0.0850	0.205	0.59	28.99
8	4/17/78	16	42	0.171	0.0850	0.205	0.61	29.01
8	4/17/78	16	52	0.168	0.0750	0.181	0.64	29.05
8	4/17/78	16	59	0.165	0.0651	0.157	0.66	29.07
8	4/17/78	17	9	0.162	0.0552	0.133	0.68	29.09
8	4/17/78	17	14	0.158	0.0453	0.109	0.69	29.10
8	4/17/78	17	19	0.162	0.0552	0.133	0.70	29.11
8	4/17/78	17	25	0.165	0.0651	0.157	0.72	29.12
8	4/17/78	17	35	0.162	0.0552	0.133	0.74	29.15
8	4/17/78	17	51	0.158	0.0453	0.109	0.77	29.18
8	4/17/78	18	1	0.155	0.0354	0.086	0.79	29.20
8	4/17/78	18	5	0.152	0.0255	0.062	0.80	29.20
8	4/17/78	18	9	0.149	0.0249	0.060	0.80	29.21
8	4/17/78	18	11	0.146	0.0244	0.059	0.80	29.21
8	4/17/78	18	13	0.143	0.0238	0.057	0.80	29.21
8	4/17/78	18	16	0.140	0.0232	0.056	0.81	29.21
8	4/17/78	18	19	0.137	0.0227	0.055	0.81	29.22
8	4/17/78	18	21	0.134	0.0221	0.053	0.81	29.22
8	4/17/78	18	23	0.131	0.0215	0.052	0.81	29.22

TABLE D1-15. CONTINUED

SITE	DATE	HOUR	MIN	STAGE M	RUNOFF RATE CMS	RUNOFF INTENSITY MMPH	STORM RUNOFF MM	ANNUAL RUNOFF MM
8	4/17/78	18	27	0.128	0.0210	0.051	0.82	29.22
8	4/17/78	18	30	0.125	0.0204	0.049	0.82	29.23
8	4/17/78	18	34	0.122	0.0198	0.048	0.82	29.23
8	4/17/78	18	42	0.119	0.0190	0.046	0.83	29.24
8	4/17/78	18	53	0.116	0.0181	0.044	0.84	29.24
8	4/17/78	19	0	0.113	0.0173	0.042	0.84	29.25
8	4/17/78	19	6	0.110	0.0164	0.040	0.85	29.25
8	4/17/78	19	19	0.107	0.0156	0.038	0.85	29.26
8	4/17/78	19	25	0.104	0.0147	0.036	0.86	29.26
8	4/17/78	19	39	0.107	0.0156	0.038	0.87	29.27
8	4/17/78	19	47	0.104	0.0147	0.036	0.87	29.28
8	4/17/78	19	53	0.101	0.0139	0.034	0.87	29.28
8	4/17/78	19	56	0.098	0.0130	0.031	0.88	29.28
8	4/17/78	20	0	0.094	0.0122	0.029	0.88	29.28
8	4/17/78	20	7	0.091	0.0113	0.027	0.88	29.29
8	4/17/78	20	13	0.088	0.0108	0.026	0.88	29.29
8	4/17/78	20	19	0.085	0.0102	0.025	0.89	29.29
8	4/17/78	20	26	0.082	0.0096	0.023	0.89	29.30
8	4/17/78	20	36	0.079	0.0091	0.022	0.89	29.30
8	4/17/78	20	49	0.076	0.0085	0.021	0.90	29.30
8	4/17/78	20	58	0.073	0.0079	0.019	0.90	29.31
8	4/17/78	21	7	0.076	0.0085	0.021	0.90	29.31
8	4/17/78	21	26	0.076	0.0085	0.021	0.91	29.32
8	4/17/78	21	40	0.073	0.0079	0.019	0.91	29.32
8	4/17/78	21	51	0.070	0.0074	0.018	0.92	29.33
8	4/17/78	22	4	0.067	0.0068	0.016	0.92	29.33
8	4/17/78	22	20	0.064	0.0062	0.015	0.93	29.33
8	4/17/78	22	27	0.064	0.0062	0.015	0.93	29.33
8	4/17/78	22	39	0.067	0.0068	0.016	0.93	29.34
8	4/17/78	22	49	0.070	0.0074	0.018	0.93	29.34
8	4/17/78	22	50	0.073	0.0079	0.019	0.93	29.34
8	4/17/78	22	51	0.076	0.0085	0.021	0.93	29.34
8	4/17/78	22	52	0.085	0.0102	0.025	0.94	29.34
8	4/17/78	22	53	0.101	0.0139	0.034	0.94	29.34
8	4/17/78	22	54	0.122	0.0198	0.048	0.94	29.34
8	4/17/78	22	55	0.149	0.0249	0.060	0.94	29.34
8	4/17/78	22	56	0.162	0.0552	0.133	0.94	29.35
8	4/17/78	22	58	0.165	0.0651	0.157	0.94	29.35
8	4/17/78	23	1	0.168	0.0750	0.181	0.95	29.36
8	4/17/78	23	2	0.174	0.0949	0.229	0.96	29.36
8	4/17/78	23	3	0.177	0.1048	0.253	0.96	29.37
8	4/17/78	23	4	0.183	0.1246	0.301	0.96	29.37
8	4/17/78	23	5	0.186	0.1419	0.343	0.97	29.38
8	4/17/78	23	6	0.189	0.1591	0.385	0.98	29.38
8	4/17/78	23	7	0.192	0.1764	0.426	0.98	29.39
8	4/17/78	23	8	0.195	0.1937	0.468	0.99	29.40
8	4/17/78	23	13	0.198	0.2110	0.510	1.03	29.44
8	4/17/78	23	19	0.198	0.2110	0.510	1.08	29.49
8	4/17/78	23	20	0.207	0.2628	0.635	1.09	29.50
8	4/17/78	23	21	0.216	0.3200	0.773	1.10	29.51
8	4/17/78	23	22	0.223	0.3653	0.883	1.12	29.52
8	4/17/78	23	23	0.226	0.3879	0.937	1.13	29.54
8	4/17/78	23	24	0.229	0.4106	0.992	1.15	29.55
8	4/17/78	23	28	0.229	0.4106	0.992	1.21	29.62
8	4/17/78	23	30	0.226	0.3879	0.937	1.25	29.65
8	4/17/78	23	38	0.226	0.3879	0.937	1.37	29.76
8	4/17/78	23	47	0.223	0.3653	0.883	1.51	29.91
8	4/17/78	23	50	0.219	0.3426	0.828	1.55	29.96
8	4/17/78	23	54	0.223	0.3653	0.883	1.61	30.01
8	4/17/78	23	56	0.226	0.3879	0.937	1.64	30.04
8	4/18/78	0	12	0.226	0.3879	0.937	1.89	30.29
8	4/18/78	0	27	0.223	0.3653	0.883	2.12	30.52
8	4/18/78	0	43	0.219	0.3426	0.828	2.34	30.75
8	4/18/78	0	53	0.216	0.3200	0.773	2.48	30.88
8	4/18/78	1	0	0.213	0.2973	0.718	2.56	30.97
8	4/18/78	1	6	0.210	0.2801	0.677	2.63	31.04
8	4/18/78	1	10	0.207	0.2628	0.635	2.68	31.08
8	4/18/78	1	15	0.204	0.2455	0.593	2.73	31.13
8	4/18/78	1	18	0.201	0.2282	0.551	2.76	31.16
8	4/18/78	1	22	0.198	0.2110	0.510	2.79	31.20
8	4/18/78	1	26	0.195	0.1937	0.468	2.82	31.23
8	4/18/78	1	31	0.192	0.1764	0.426	2.86	31.27
8	4/18/78	1	37	0.189	0.1591	0.385	2.90	31.31
8	4/18/78	1	45	0.186	0.1419	0.343	2.95	31.36
8	4/18/78	1	54	0.183	0.1246	0.301	3.00	31.41
8	4/18/78	2	6	0.180	0.1147	0.277	3.06	31.46
8	4/18/78	2	18	0.177	0.1048	0.253	3.11	31.52
8	4/18/78	2	31	0.174	0.0949	0.229	3.16	31.57
8	4/18/78	2	45	0.171	0.0850	0.205	3.21	31.62
8	4/18/78	3	8	0.168	0.0750	0.181	3.29	31.69
8	4/18/78	3	35	0.165	0.0651	0.157	3.36	31.77
8	4/18/78	4	13	0.165	0.0651	0.157	3.46	31.87
8	4/18/78	4	19	0.168	0.0750	0.181	3.48	31.89
8	4/18/78	4	21	0.171	0.0850	0.205	3.49	31.89
8	4/18/78	4	24	0.174	0.0949	0.229	3.50	31.90
8	4/18/78	4	28	0.174	0.0949	0.229	3.51	31.92
8	4/18/78	4	38	0.171	0.0850	0.205	3.55	31.95
8	4/18/78	4	43	0.174	0.0949	0.229	3.57	31.97
8	4/18/78	4	44	0.177	0.1048	0.253	3.57	31.98
8	4/18/78	4	46	0.180	0.1147	0.277	3.58	31.99
8	4/18/78	4	48	0.183	0.1246	0.301	3.59	32.00
8	4/18/78	4	54	0.180	0.1147	0.277	3.62	32.02
8	4/18/78	5	4	0.177	0.1048	0.253	3.66	32.07
8	4/18/78	5	8	0.177	0.1048	0.253	3.68	32.09
8	4/18/78	5	18	0.180	0.1147	0.277	3.72	32.13
8	4/18/78	5	21	0.180	0.1147	0.277	3.74	32.14
8	4/18/78	5	28	0.177	0.1048	0.253	3.77	32.17
8	4/18/78	5	36	0.177	0.1048	0.253	3.80	32.21
8	4/18/78	5	42	0.180	0.1147	0.277	3.83	32.23
8	4/18/78	5	46	0.180	0.1147	0.277	3.85	32.26
8	4/18/78	5	53	0.177	0.1048	0.253	3.88	32.28
8	4/18/78	6	1	0.174	0.0949	0.229	3.91	32.32
8	4/18/78	6	11	0.171	0.0850	0.205	3.95	32.35
8	4/18/78	6	33	0.168	0.0750	0.181	4.02	32.42

TABLE D1-15. CONTINUED

SITE	DATE	HOUR	MIN	STAGE M	RUNOFF RATE CMS	RUNOFF INTENSITY MMPH	STORM RUNOFF MM	ANNUAL RUNOFF MM
8	4/18/78	7	1	0.165	0.0651	0.157	0.08	32.50
8	4/18/78	7	29	0.162	0.0552	0.133	0.15	32.57
8	4/18/78	7	59	0.158	0.0453	0.109	0.21	32.63
8	4/18/78	8	36	0.155	0.0354	0.086	0.27	32.69
8	4/18/78	8	59	0.152	0.0255	0.062	0.30	32.72
8	4/18/78	9	11	0.149	0.0249	0.060	0.31	32.73
8	4/18/78	9	23	0.146	0.0244	0.059	0.32	32.74
8	4/18/78	9	35	0.143	0.0238	0.057	0.33	32.75
8	4/18/78	9	47	0.140	0.0232	0.056	0.34	32.77
8	4/18/78	9	55	0.137	0.0227	0.055	0.35	32.77
8	4/18/78	10	8	0.134	0.0221	0.053	0.36	32.79
8	4/18/78	10	32	0.131	0.0215	0.052	0.38	32.81
8	4/18/78	10	35	0.131	0.0215	0.052	0.39	32.81
8	4/18/78	10	49	0.128	0.0210	0.051	0.40	32.82
8	4/18/78	11	3	0.125	0.0204	0.049	0.41	32.83
8	4/18/78	11	15	0.125	0.0204	0.049	0.42	32.84
8	4/18/78	11	29	0.122	0.0198	0.048	0.43	32.85
8	4/18/78	11	42	0.119	0.0190	0.046	0.44	32.86
8	4/18/78	11	58	0.116	0.0181	0.044	0.45	32.88
8	4/18/78	12	3	0.113	0.0173	0.042	0.46	32.88
8	4/18/78	12	35	0.110	0.0164	0.040	0.48	32.90
8	4/18/78	13	23	0.107	0.0156	0.038	0.51	32.93
8	4/18/78	14	11	0.104	0.0147	0.036	0.54	32.96
8	4/18/78	15	0	0.101	0.0139	0.034	0.57	32.99
8	4/18/78	15	39	0.098	0.0130	0.031	0.59	33.01
8	4/18/78	15	40	0.094	0.0122	0.029	0.59	33.01
8	4/18/78	15	42	0.091	0.0113	0.027	0.59	33.01
8	4/18/78	15	46	0.088	0.0108	0.026	0.59	33.01
8	4/18/78	16	20	0.085	0.0102	0.025	0.61	33.03
8	4/18/78	16	36	0.085	0.0102	0.025	0.61	33.03
8	4/18/78	17	8	0.088	0.0108	0.026	0.63	33.05
8	4/18/78	17	27	0.091	0.0113	0.027	0.63	33.06
8	4/18/78	17	39	0.094	0.0122	0.029	0.64	33.06
8	4/18/78	17	42	0.098	0.0130	0.031	0.64	33.06
8	4/18/78	17	43	0.101	0.0139	0.034	0.64	33.06
8	4/18/78	17	44	0.107	0.0156	0.038	0.64	33.07
8	4/18/78	17	45	0.113	0.0173	0.042	0.64	33.07
8	4/18/78	17	46	0.119	0.0190	0.046	0.64	33.07
8	4/18/78	17	47	0.128	0.0210	0.051	0.64	33.07
8	4/18/78	17	48	0.137	0.0227	0.055	0.64	33.07
8	4/18/78	17	49	0.143	0.0238	0.057	0.65	33.07
8	4/18/78	17	50	0.149	0.0249	0.060	0.65	33.07
8	4/18/78	17	51	0.152	0.0255	0.062	0.65	33.07
8	4/18/78	17	52	0.155	0.0354	0.086	0.65	33.07
8	4/18/78	17	59	0.155	0.0354	0.086	0.66	33.08
8	4/18/78	18	3	0.152	0.0255	0.062	0.66	33.09
8	4/18/78	18	5	0.149	0.0249	0.060	0.67	33.09
8	4/18/78	18	6	0.146	0.0244	0.059	0.67	33.09
8	4/18/78	18	7	0.143	0.0238	0.057	0.67	33.09
8	4/18/78	18	8	0.140	0.0232	0.056	0.67	33.09
8	4/18/78	18	10	0.137	0.0227	0.055	0.67	33.09
8	4/18/78	18	11	0.134	0.0221	0.053	0.67	33.09
8	4/18/78	18	12	0.131	0.0215	0.052	0.67	33.10
8	4/18/78	18	14	0.128	0.0210	0.051	0.67	33.10
8	4/18/78	18	15	0.131	0.0215	0.052	0.68	33.10
8	4/18/78	18	16	0.146	0.0244	0.059	0.68	33.10
8	4/18/78	18	17	0.158	0.0453	0.109	0.68	33.10
8	4/18/78	18	18	0.162	0.0552	0.133	0.68	33.10
8	4/18/78	18	19	0.165	0.0651	0.157	0.68	33.10
8	4/18/78	18	26	0.165	0.0651	0.157	0.70	33.12
8	4/18/78	18	35	0.162	0.0552	0.133	0.72	33.14
8	4/18/78	18	43	0.158	0.0453	0.109	0.74	33.16
8	4/18/78	18	53	0.155	0.0354	0.086	0.75	33.18
8	4/18/78	18	57	0.152	0.0255	0.062	0.76	33.18
8	4/18/78	19	0	0.149	0.0249	0.060	0.76	33.19
8	4/18/78	19	2	0.146	0.0244	0.059	0.76	33.19
8	4/18/78	19	4	0.143	0.0238	0.057	0.77	33.19
8	4/18/78	19	6	0.140	0.0232	0.056	0.77	33.19
8	4/18/78	19	9	0.137	0.0227	0.055	0.77	33.19
8	4/18/78	19	11	0.134	0.0221	0.053	0.77	33.20
8	4/18/78	19	13	0.131	0.0215	0.052	0.77	33.20
8	4/18/78	19	15	0.128	0.0210	0.051	0.78	33.20
8	4/18/78	19	18	0.125	0.0204	0.049	0.78	33.20
8	4/18/78	19	20	0.122	0.0198	0.048	0.78	33.21
8	4/18/78	19	23	0.119	0.0190	0.046	0.78	33.21
8	4/18/78	19	27	0.116	0.0181	0.044	0.79	33.21
8	4/18/78	19	33	0.113	0.0173	0.042	0.79	33.21
8	4/18/78	19	40	0.110	0.0164	0.040	0.79	33.22
8	4/18/78	19	51	0.107	0.0156	0.038	0.80	33.22
8	4/18/78	20	4	0.104	0.0147	0.036	0.81	33.23
8	4/18/78	20	19	0.101	0.0139	0.034	0.82	33.24
8	4/18/78	20	33	0.098	0.0130	0.031	0.83	33.25
8	4/18/78	20	50	0.094	0.0122	0.029	0.83	33.26
8	4/18/78	21	11	0.091	0.0113	0.027	0.84	33.27
8	4/18/78	21	41	0.088	0.0108	0.026	0.86	33.28
8	4/18/78	22	18	0.085	0.0102	0.025	0.87	33.30
8	4/19/78	0	57	0.085	0.0102	0.025	0.94	33.36
8	4/19/78	1	35	0.082	0.0096	0.023	0.95	33.38
8	4/19/78	2	28	0.079	0.0091	0.022	0.97	33.40
8	4/19/78	3	29	0.076	0.0085	0.021	1.00	33.42
8	4/19/78	4	14	0.073	0.0079	0.019	1.01	33.43
8	4/19/78	5	18	0.070	0.0074	0.018	1.03	33.45
8	4/19/78	6	20	0.067	0.0068	0.016	1.05	33.47
8	4/19/78	7	32	0.064	0.0062	0.015	1.07	33.49
8	4/19/78	7	59	0.061	0.0057	0.014	1.07	33.50
8	4/19/78	8	19	0.058	0.0054	0.013	1.08	33.50
8	4/19/78	8	33	0.055	0.0051	0.012	1.08	33.50
8	4/19/78	8	34	0.052	0.0048	0.012	1.08	33.50
8	4/19/78	8	45	0.049	0.0045	0.011	1.08	33.51
8	4/19/78	8	58	0.046	0.0042	0.010	1.09	33.51
8	4/19/78	9	11	0.043	0.0040	0.010	1.09	33.51
8	4/19/78	12	0	0.0	0.0	0.0	1.10	33.52

TABLE D1-15. CONTINUED

SITE	DATE	HOUR	MIN	STAGE M	RUNOFF RATE CMS	RUNOFF INTENSITY MMPH	STORM RUNOFF MM	ANNUAL RUNOFF MM
8	5/13/78	0	20	0.0	0.0	0.0	0.0	33.52
8	5/13/78	1	53	0.003	0.0088	0.021	0.02	33.54
8	5/13/78	1	59	0.006	0.0176	0.042	0.02	33.54
8	5/13/78	2	29	0.006	0.0176	0.042	0.04	33.56
8	5/13/78	3	0	0.003	0.0088	0.021	0.06	33.58
8	5/13/78	3	42	0.006	0.0176	0.042	0.08	33.60
8	5/13/78	4	7	0.009	0.0263	0.064	0.10	33.62
8	5/13/78	4	19	0.009	0.0263	0.064	0.11	33.64
8	5/13/78	5	48	0.006	0.0176	0.042	0.19	33.72
8	5/13/78	6	20	0.006	0.0176	0.042	0.22	33.74
8	5/13/78	7	8	0.003	0.0088	0.021	0.24	33.76
8	5/13/78	7	20	0.0	0.0	0.0	0.24	33.77
8	5/27/78	16	28	0.0	0.0	0.0	0.0	33.77
8	5/27/78	16	43	0.003	0.0088	0.021	0.00	33.77
8	5/27/78	16	44	0.055	0.2214	0.535	0.01	33.77
8	5/27/78	16	45	0.076	0.3667	0.886	0.02	33.79
8	5/27/78	16	46	0.098	0.5335	1.289	0.04	33.80
8	5/27/78	16	47	0.110	0.6434	1.554	0.06	33.83
8	5/27/78	16	48	0.116	0.6983	1.687	0.09	33.85
8	5/27/78	16	49	0.119	0.7258	1.754	0.12	33.88
8	5/27/78	16	50	0.122	0.7532	1.820	0.15	33.91
8	5/27/78	16	51	0.128	0.8178	1.976	0.18	33.94
8	5/27/78	16	52	0.158	1.1497	2.778	0.22	33.98
8	5/27/78	16	53	0.232	2.1408	5.172	0.28	34.05
8	5/27/78	16	54	0.283	2.8855	6.972	0.39	34.15
8	5/27/78	16	55	0.299	3.0695	7.416	0.51	34.27
8	5/27/78	16	56	0.293	2.9959	7.238	0.63	34.39
8	5/27/78	16	57	0.290	2.9591	7.150	0.75	34.51
8	5/27/78	16	58	0.277	2.8119	6.794	0.86	34.63
8	5/27/78	16	59	0.268	2.6844	6.486	0.97	34.74
8	5/27/78	17	0	0.250	2.4126	5.829	1.08	34.84
8	5/27/78	17	1	0.238	2.2314	5.391	1.17	34.94
8	5/27/78	17	2	0.223	2.0048	4.844	1.26	35.02
8	5/27/78	17	3	0.210	1.8264	4.413	1.33	35.10
8	5/27/78	17	4	0.201	1.6990	4.106	1.40	35.17
8	5/27/78	17	5	0.195	1.6141	3.900	1.47	35.24
8	5/27/78	17	6	0.189	1.5291	3.694	1.53	35.30
8	5/27/78	17	7	0.176	1.3337	3.222	1.59	35.36
8	5/27/78	17	8	0.162	1.1865	2.867	1.64	35.41
8	5/27/78	17	9	0.158	1.1497	2.778	1.69	35.45
8	5/27/78	17	10	0.155	1.1129	2.689	1.73	35.50
8	5/27/78	17	12	0.152	1.0760	2.600	1.82	35.59
8	5/27/78	17	14	0.149	1.0438	2.522	1.91	35.67
8	5/27/78	17	15	0.143	0.9792	2.366	1.95	35.71
8	5/27/78	17	16	0.137	0.9146	2.210	1.99	35.75
8	5/27/78	17	17	0.128	0.8178	1.976	2.02	35.79
8	5/27/78	17	18	0.113	0.6708	1.621	2.05	35.82
8	5/27/78	17	19	0.107	0.6159	1.488	2.08	35.84
8	5/27/78	17	20	0.101	0.5610	1.355	2.10	35.87
8	5/27/78	17	21	0.094	0.5060	1.223	2.12	35.89
8	5/27/78	17	22	0.091	0.4786	1.156	2.14	35.91
8	5/27/78	17	23	0.088	0.4562	1.102	2.16	35.93
8	5/27/78	17	24	0.085	0.4338	1.048	2.18	35.95
8	5/27/78	17	25	0.079	0.3891	0.940	2.20	35.96
8	5/27/78	17	26	0.076	0.3667	0.886	2.21	35.98
8	5/27/78	17	27	0.073	0.3443	0.832	2.23	35.99
8	5/27/78	17	30	0.067	0.2996	0.724	2.26	36.03
8	5/27/78	17	32	0.064	0.2772	0.670	2.29	36.05
8	5/27/78	17	34	0.061	0.2549	0.616	2.31	36.07
8	5/27/78	17	37	0.058	0.2381	0.575	2.34	36.10
8	5/27/78	17	39	0.055	0.2214	0.535	2.36	36.12
8	5/27/78	17	42	0.052	0.2047	0.495	2.38	36.15
8	5/27/78	17	45	0.049	0.1880	0.454	2.41	36.17
8	5/27/78	17	49	0.046	0.1713	0.414	2.44	36.20
8	5/27/78	17	53	0.043	0.1546	0.374	2.46	36.23
8	5/27/78	17	59	0.040	0.1379	0.333	2.50	36.26
8	5/27/78	18	4	0.037	0.1212	0.293	2.52	36.29
8	5/27/78	18	11	0.034	0.1045	0.252	2.56	36.32
8	5/27/78	18	20	0.030	0.0878	0.212	2.59	36.36
8	5/27/78	18	29	0.027	0.0790	0.191	2.62	36.39
8	5/27/78	18	38	0.024	0.0702	0.170	2.65	36.41
8	5/27/78	18	47	0.021	0.0614	0.148	2.67	36.44
8	5/27/78	18	57	0.018	0.0527	0.127	2.69	36.46
8	5/27/78	19	8	0.015	0.0439	0.106	2.72	36.48
8	5/27/78	19	15	0.012	0.0351	0.085	2.73	36.49
8	5/27/78	19	20	0.009	0.0263	0.064	2.73	36.50
8	5/27/78	19	22	0.006	0.0176	0.042	2.73	36.50
8	5/27/78	19	24	0.003	0.0088	0.021	2.74	36.50
8	5/27/78	19	26	0.0	0.0	0.0	2.74	36.50
8	5/31/78	22	24	0.0	0.0	0.0	0.0	36.50
8	5/31/78	22	25	0.043	0.1546	0.374	0.00	36.50
8	5/31/78	22	26	0.055	0.2214	0.535	0.01	36.51
8	5/31/78	22	27	0.058	0.2381	0.575	0.02	36.52
8	5/31/78	22	28	0.061	0.2549	0.616	0.03	36.53
8	5/31/78	22	30	0.058	0.2381	0.575	0.05	36.55
8	5/31/78	22	31	0.055	0.2214	0.535	0.06	36.56
8	5/31/78	22	33	0.052	0.2047	0.495	0.08	36.58
8	5/31/78	22	34	0.049	0.1880	0.454	0.08	36.59
8	5/31/78	22	36	0.046	0.1713	0.414	0.10	36.60
8	5/31/78	22	38	0.043	0.1546	0.374	0.11	36.61
8	5/31/78	22	40	0.040	0.1379	0.333	0.12	36.63
8	5/31/78	22	42	0.037	0.1212	0.293	0.13	36.64
8	5/31/78	22	44	0.034	0.1045	0.252	0.14	36.64
8	5/31/78	22	46	0.030	0.0878	0.212	0.15	36.65
8	5/31/78	22	49	0.027	0.0790	0.191	0.16	36.66
8	5/31/78	22	53	0.024	0.0702	0.170	0.17	36.67
8	5/31/78	22	55	0.027	0.0790	0.191	0.18	36.68
8	5/31/78	22	56	0.030	0.0878	0.212	0.18	36.68
8	5/31/78	22	57	0.034	0.1045	0.252	0.19	36.69
8	5/31/78	22	58	0.037	0.1212	0.293	0.19	36.69

TABLE D1-15. CONTINUED

SITE	DATE	HOUR	MIN	STAGE M	RUNOFF RATE CMS	RUNOFF INTENSITY MMPH	STORM RUNOFF MM	ANNUAL RUNOFF MM
8	5/31/78	22	59	0.040	0.1379	0.333	0.20	36.70
8	5/31/78	23	2	0.043	0.1546	0.374	0.21	36.72
8	5/31/78	23	9	0.043	0.1546	0.374	0.26	36.76
8	5/31/78	23	17	0.040	0.1379	0.333	0.30	36.81
8	5/31/78	23	25	0.037	0.1212	0.293	0.35	36.85
8	5/31/78	23	33	0.034	0.1045	0.252	0.38	36.88
8	5/31/78	23	43	0.030	0.0878	0.212	0.42	36.92
8	5/31/78	23	51	0.027	0.0790	0.191	0.45	36.95
8	5/31/78	23	58	0.024	0.0702	0.170	0.47	36.97
8	6/ 1/78	0	4	0.021	0.0614	0.148	0.48	36.99
8	6/ 1/78	0	11	0.018	0.0527	0.127	0.50	37.00
8	6/ 1/78	0	19	0.015	0.0439	0.106	0.52	37.02
8	6/ 1/78	0	24	0.012	0.0351	0.085	0.52	37.03
8	6/ 1/78	0	27	0.009	0.0263	0.064	0.53	37.03
8	6/ 1/78	0	30	0.006	0.0176	0.042	0.53	37.03
8	6/ 1/78	0	33	0.003	0.0088	0.021	0.53	37.03
8	6/ 1/78	0	35	0.0	0.0	0.0	0.53	37.03
8	6/15/78	2	28	0.0	0.0	0.0	0.0	37.03
8	6/15/78	2	40	0.003	0.0088	0.021	0.00	37.04
8	6/15/78	2	52	0.006	0.0176	0.042	0.01	37.04
8	6/15/78	2	53	0.018	0.0527	0.127	0.01	37.04
8	6/15/78	2	54	0.027	0.0790	0.191	0.01	37.05
8	6/15/78	2	55	0.030	0.0878	0.212	0.02	37.05
8	6/15/78	2	57	0.034	0.1045	0.252	0.02	37.06
8	6/15/78	3	0	0.037	0.1212	0.293	0.04	37.07
8	6/15/78	3	3	0.040	0.1379	0.333	0.05	37.09
8	6/15/78	3	11	0.037	0.1212	0.293	0.09	37.13
8	6/15/78	3	19	0.034	0.1045	0.252	0.13	37.17
8	6/15/78	3	26	0.030	0.0878	0.212	0.16	37.19
8	6/15/78	3	33	0.027	0.0790	0.191	0.18	37.22
8	6/15/78	3	39	0.024	0.0702	0.170	0.20	37.23
8	6/15/78	3	47	0.021	0.0614	0.148	0.22	37.25
8	6/15/78	3	56	0.018	0.0527	0.127	0.24	37.28
8	6/15/78	4	8	0.015	0.0439	0.106	0.26	37.30
8	6/15/78	4	17	0.012	0.0351	0.085	0.28	37.31
8	6/15/78	4	28	0.009	0.0263	0.064	0.29	37.33
8	6/15/78	4	36	0.006	0.0176	0.042	0.30	37.33
8	6/15/78	4	42	0.003	0.0088	0.021	0.30	37.34
8	6/15/78	4	44	0.0	0.0	0.0	0.30	37.34
8	6/20/78	1	37	0.0	0.0	0.0	0.0	37.34
8	6/20/78	1	38	0.058	0.2381	0.575	0.00	37.34
8	6/20/78	1	39	0.067	0.2996	0.724	0.02	37.35
8	6/20/78	1	40	0.073	0.3443	0.832	0.03	37.37
8	6/20/78	1	41	0.079	0.3891	0.940	0.04	37.38
8	6/20/78	1	42	0.082	0.4114	0.994	0.06	37.40
8	6/20/78	1	43	0.085	0.4338	1.048	0.08	37.41
8	6/20/78	1	44	0.088	0.4562	1.102	0.09	37.43
8	6/20/78	1	45	0.091	0.4786	1.156	0.11	37.45

SITE	DATE	HOUR	MIN	STAGE M	RUNOFF RATE CMS	RUNOFF INTENSITY MMPH	STORM RUNOFF MM	ANNUAL RUNOFF MM
8	6/20/78	1	47	0.094	0.5060	1.223	0.15	37.49
8	6/20/78	1	55	0.098	0.5335	1.289	0.32	37.66
8	6/20/78	1	57	0.094	0.5060	1.223	0.36	37.70
8	6/20/78	2	0	0.091	0.4786	1.156	0.42	37.76
8	6/20/78	2	2	0.088	0.4562	1.102	0.46	37.80
8	6/20/78	2	5	0.085	0.4338	1.048	0.51	37.85
8	6/20/78	2	7	0.082	0.4114	0.994	0.55	37.88
8	6/20/78	2	9	0.079	0.3891	0.940	0.58	37.92
8	6/20/78	2	11	0.076	0.3667	0.886	0.61	37.95
8	6/20/78	2	13	0.073	0.3443	0.832	0.64	37.98
8	6/20/78	2	16	0.070	0.3220	0.778	0.68	38.02
8	6/20/78	2	20	0.067	0.2996	0.724	0.73	38.07
8	6/20/78	2	24	0.064	0.2772	0.670	0.78	38.11
8	6/20/78	2	30	0.061	0.2549	0.616	0.84	38.18
8	6/20/78	2	35	0.064	0.2772	0.670	0.89	38.23
8	6/20/78	2	37	0.067	0.2996	0.724	0.92	38.25
8	6/20/78	2	41	0.070	0.3220	0.778	0.97	38.30
8	6/20/78	2	49	0.070	0.3220	0.778	1.07	38.41
8	6/20/78	3	0	0.067	0.2996	0.724	1.21	38.54
8	6/20/78	3	8	0.067	0.2996	0.724	1.30	38.64
8	6/20/78	3	13	0.064	0.2772	0.670	1.36	38.70
8	6/20/78	3	17	0.061	0.2549	0.616	1.41	38.74
8	6/20/78	3	21	0.058	0.2381	0.575	1.44	38.78
8	6/20/78	3	24	0.055	0.2214	0.535	1.47	38.81
8	6/20/78	3	28	0.052	0.2047	0.495	1.51	38.84
8	6/20/78	3	32	0.049	0.1880	0.454	1.54	38.88
8	6/20/78	3	35	0.046	0.1713	0.414	1.56	38.90
8	6/20/78	3	38	0.043	0.1546	0.374	1.58	38.92
8	6/20/78	3	42	0.040	0.1379	0.333	1.60	38.94
8	6/20/78	3	46	0.037	0.1212	0.293	1.62	38.96
8	6/20/78	3	51	0.034	0.1045	0.252	1.65	38.98
8	6/20/78	3	57	0.030	0.0878	0.212	1.67	39.01
8	6/20/78	4	5	0.027	0.0790	0.191	1.70	39.03
8	6/20/78	4	12	0.024	0.0702	0.170	1.72	39.06
8	6/20/78	4	21	0.021	0.0614	0.148	1.74	39.08
8	6/20/78	4	32	0.018	0.0527	0.127	1.77	39.10
8	6/20/78	4	41	0.021	0.0614	0.148	1.79	39.13
8	6/20/78	4	54	0.018	0.0527	0.127	1.82	39.15
8	6/20/78	5	3	0.015	0.0439	0.106	1.84	39.17
8	6/20/78	5	13	0.006	0.0176	0.042	1.85	39.18
8	6/20/78	5	20	0.003	0.0088	0.021	1.85	39.19
8	6/20/78	5	22	0.0	0.0	0.0	1.85	39.19
8	8/26/78	20	51	0.0	0.0	0.0	0.0	39.19
8	8/26/78	20	52	0.003	0.0088	0.021	0.00	39.19
8	8/26/78	20	55	0.006	0.0176	0.042	0.00	39.19
8	8/26/78	20	59	0.003	0.0088	0.021	0.00	39.19
8	8/26/78	21	3	0.0	0.0	0.0	0.00	39.19
8	8/26/78	21	6	0.003	0.0088	0.021	0.01	39.19
8	8/26/78	21	8	0.006	0.0176	0.042	0.01	39.19
8	8/26/78	21	9	0.009	0.0263	0.064	0.01	39.20

TABLE D1-15. CONTINUED

SITE	DATE	HOUR	MIN	STAGE M	RUNOFF RATE CMS	RUNOFF INTENSITY MMPH	STORM RUNOFF MM	ANNUAL RUNOFF MM
8	8/26/78	21	10	0.012	0.0351	0.085	0.01	39.20
8	8/26/78	21	11	0.018	0.0527	0.127	0.01	39.20
8	8/26/78	21	12	0.027	0.0790	0.191	0.01	39.20
8	8/26/78	21	13	0.030	0.0878	0.212	0.02	39.20
8	8/26/78	21	15	0.034	0.1045	0.252	0.02	39.21
8	8/26/78	21	22	0.034	0.1045	0.252	0.05	39.24
8	8/26/78	21	28	0.030	0.0878	0.212	0.08	39.27
8	8/26/78	21	34	0.027	0.0790	0.191	0.10	39.29
8	8/26/78	21	38	0.030	0.0878	0.212	0.11	39.30
8	8/26/78	21	46	0.030	0.0878	0.212	0.14	39.33
8	8/26/78	21	53	0.027	0.0790	0.191	0.16	39.35
8	8/26/78	22	0	0.024	0.0702	0.170	0.18	39.37
8	8/26/78	22	7	0.021	0.0614	0.148	0.20	39.39
8	8/26/78	22	15	0.018	0.0527	0.127	0.22	39.41
8	8/26/78	22	25	0.018	0.0527	0.127	0.24	39.43
8	8/26/78	22	33	0.021	0.0614	0.148	0.26	39.45
8	8/26/78	22	43	0.024	0.0702	0.170	0.29	39.47
8	8/26/78	23	1	0.021	0.0614	0.148	0.33	39.52
8	8/26/78	23	24	0.018	0.0527	0.127	0.39	39.58
8	8/26/78	23	53	0.015	0.0439	0.106	0.44	39.63
8	8/27/78	0	11	0.012	0.0351	0.085	0.47	39.66
8	8/27/78	0	33	0.009	0.0263	0.064	0.50	39.69
8	8/27/78	0	50	0.006	0.0176	0.042	0.51	39.70
8	8/27/78	1	1	0.003	0.0088	0.021	0.52	39.71
8	8/27/78	1	6	0.0	0.0	0.0	0.52	39.71
8	9/13/78	22	35	0.0	0.0	0.0	0.0	39.71
8	9/13/78	23	5	0.003	0.0088	0.021	0.01	39.71
8	9/13/78	23	9	0.006	0.0176	0.042	0.01	39.72
8	9/13/78	23	11	0.009	0.0263	0.064	0.01	39.72
8	9/13/78	23	12	0.012	0.0351	0.085	0.01	39.72
8	9/13/78	23	20	0.015	0.0439	0.106	0.02	39.73
8	9/13/78	23	41	0.018	0.0527	0.127	0.06	39.77
8	9/13/78	23	42	0.034	0.1045	0.252	0.07	39.78
8	9/13/78	23	43	0.040	0.1379	0.333	0.07	39.78
8	9/13/78	23	49	0.043	0.1546	0.374	0.11	39.82
8	9/14/78	0	9	0.040	0.1379	0.333	0.23	39.93
8	9/14/78	0	16	0.037	0.1212	0.293	0.26	39.97
8	9/14/78	0	25	0.034	0.1045	0.252	0.30	40.01
8	9/14/78	0	39	0.030	0.0878	0.212	0.36	40.07
8	9/14/78	0	55	0.027	0.0790	0.191	0.41	40.12
8	9/14/78	1	6	0.024	0.0702	0.170	0.44	40.15
8	9/14/78	1	22	0.021	0.0614	0.148	0.49	40.19
8	9/14/78	1	40	0.018	0.0527	0.127	0.53	40.24
8	9/14/78	2	1	0.015	0.0439	0.106	0.57	40.28
8	9/14/78	2	20	0.012	0.0351	0.085	0.60	40.31
8	9/14/78	2	48	0.009	0.0263	0.064	0.63	40.34
8	9/14/78	3	5	0.006	0.0176	0.042	0.65	40.36
8	9/14/78	3	17	0.003	0.0088	0.021	0.65	40.36
8	9/14/78	6	52	0.0	0.0	0.0	0.69	40.40
8	9/17/78	20	34	0.0	0.0	0.0	0.0	40.46
8	9/18/78	1	51	0.003	0.0088	0.021	0.06	40.46
8	9/18/78	4	0	0.0	0.0	0.0	0.08	40.48
8	9/19/78	19	21	0.0	0.0	0.0	0.0	40.48
8	9/19/78	19	55	0.003	0.0088	0.021	0.01	40.49
8	9/19/78	19	57	0.006	0.0176	0.042	0.01	40.49
8	9/19/78	20	3	0.009	0.0263	0.064	0.01	40.49
8	9/19/78	20	17	0.009	0.0263	0.064	0.03	40.51
8	9/19/78	20	29	0.006	0.0176	0.042	0.04	40.52
8	9/19/78	20	30	0.009	0.0263	0.064	0.04	40.52
8	9/19/78	20	31	0.012	0.0351	0.085	0.04	40.52
8	9/19/78	20	32	0.018	0.0527	0.127	0.04	40.52
8	9/19/78	20	33	0.024	0.0702	0.170	0.04	40.52
8	9/19/78	20	35	0.030	0.0878	0.212	0.05	40.53
8	9/19/78	20	38	0.034	0.1045	0.252	0.06	40.54
8	9/19/78	20	44	0.030	0.0878	0.212	0.09	40.57
8	9/19/78	20	53	0.027	0.0790	0.191	0.12	40.60
8	9/19/78	21	6	0.024	0.0702	0.170	0.15	40.63
8	9/19/78	21	24	0.021	0.0614	0.148	0.20	40.68
8	9/19/78	21	39	0.018	0.0527	0.127	0.24	40.72
8	9/19/78	22	16	0.015	0.0439	0.106	0.31	40.79
8	9/19/78	22	28	0.012	0.0351	0.085	0.33	40.81
8	9/19/78	22	31	0.015	0.0439	0.106	0.33	40.81
8	9/19/78	22	33	0.018	0.0527	0.127	0.34	40.82
8	9/19/78	22	34	0.021	0.0614	0.148	0.34	40.82
8	9/19/78	22	35	0.024	0.0702	0.170	0.34	40.82
8	9/19/78	22	41	0.027	0.0790	0.191	0.36	40.84
8	9/19/78	22	57	0.024	0.0702	0.170	0.41	40.89
8	9/19/78	23	11	0.021	0.0614	0.148	0.44	40.92
8	9/19/78	23	28	0.018	0.0527	0.127	0.48	40.96
8	9/19/78	23	45	0.015	0.0439	0.106	0.52	41.00
8	9/19/78	24	0	0.012	0.0351	0.085	0.54	41.02
8	9/20/78	0	23	0.009	0.0263	0.064	0.57	41.05
8	9/20/78	0	41	0.006	0.0176	0.042	0.59	41.06
8	9/20/78	0	50	0.003	0.0088	0.021	0.59	41.07
8	9/20/78	0	59	0.003	0.0088	0.021	0.59	41.07
8	9/20/78	1	7	0.0	0.0	0.0	0.59	41.07
8	9/20/78	3	11	0.0	0.0	0.0	0.59	41.07
8	9/20/78	3	13	0.003	0.0088	0.021	0.59	41.07
8	9/20/78	3	15	0.006	0.0176	0.042	0.60	41.08
8	9/20/78	3	22	0.009	0.0263	0.064	0.60	41.08
8	9/20/78	3	46	0.009	0.0263	0.064	0.63	41.11
8	9/20/78	4	9	0.006	0.0176	0.042	0.65	41.13
8	9/20/78	4	23	0.003	0.0088	0.021	0.66	41.13
8	9/20/78	4	32	0.0	0.0	0.0	0.66	41.14
8	9/20/78	9	5	0.0	0.0	0.0	0.66	41.14
8	9/20/78	9	8	0.003	0.0088	0.021	0.66	41.14

TABLE D1-15. CONCLUDED

SITE	DATE	HOUR	MIN	STAGE M	RUNOFF RATE CMS	RUNOFF INTENSITY MMPH	STORM RUNOFF MM	ANNUAL RUNOFF MM
a	9/20/78	9	13	0.006	0.0176	0.042	0.66	41.14
a	9/20/78	9	33	0.009	0.0263	0.064	0.68	41.16
a	9/20/78	9	41	0.012	0.0351	0.085	0.69	41.17
a	9/20/78	9	48	0.015	0.0439	0.106	0.70	41.18
a	9/20/78	9	53	0.018	0.0527	0.127	0.71	41.19
a	9/20/78	9	59	0.021	0.0614	0.148	0.72	41.20
a	9/20/78	10	14	0.021	0.0614	0.148	0.76	41.24
a	9/20/78	10	20	0.024	0.0702	0.170	0.78	41.25
a	9/20/78	10	23	0.027	0.0790	0.191	0.78	41.26
a	9/20/78	10	25	0.030	0.0878	0.212	0.79	41.27
a	9/20/78	10	30	0.034	0.1045	0.252	0.81	41.29
a	9/20/78	10	43	0.037	0.1212	0.293	0.87	41.35
a	9/20/78	10	45	0.040	0.1379	0.333	0.88	41.36
a	9/20/78	10	46	0.043	0.1546	0.374	0.89	41.37
a	9/20/78	10	48	0.046	0.1713	0.414	0.90	41.38
a	9/20/78	10	53	0.049	0.1880	0.454	0.93	41.41
a	9/20/78	10	56	0.049	0.1880	0.454	0.96	41.44
a	9/20/78	11	4	0.046	0.1713	0.414	1.02	41.50
a	9/20/78	11	11	0.043	0.1546	0.374	1.06	41.54
a	9/20/78	11	17	0.040	0.1379	0.333	1.10	41.58
a	9/20/78	11	24	0.037	0.1212	0.293	1.13	41.61
a	9/20/78	11	30	0.034	0.1045	0.252	1.16	41.64
a	9/20/78	11	42	0.030	0.0878	0.212	1.21	41.69
a	9/20/78	11	54	0.027	0.0790	0.191	1.25	41.73
a	9/20/78	12	1	0.024	0.0702	0.170	1.27	41.75
a	9/20/78	12	18	0.021	0.0614	0.148	1.31	41.79
a	9/20/78	12	34	0.018	0.0527	0.127	1.35	41.83
a	9/20/78	12	54	0.015	0.0439	0.106	1.39	41.87
a	9/20/78	13	13	0.012	0.0351	0.085	1.42	41.90
a	9/20/78	13	33	0.009	0.0263	0.064	1.44	41.92
a	9/20/78	13	50	0.006	0.0176	0.042	1.46	41.94
a	9/20/78	14	1	0.003	0.0088	0.021	1.46	41.94
a	9/20/78	19	50	0.0	0.0	0.0	1.53	42.01

Average daily discharge (cfs)* at site 4 - water year 1976

IOWA RIVER BASIN

05464137 FOURMILE CREEK NEAR TRAER, IA

LOCATION.--Lat 42°12'07", long 92°33'44", NW1/4 SE1/4 sec.2, T.85 N., R.15 W., Tama County, Hydrologic Unit 07080205, on left bank 10 ft (3 m) downstream from bridge on county highway T69, 2.0 mi (3.2 km) upstream from mouth, and 5.0 mi (8.0 km) northwest of Traer.

DRAINAGE AREA.--19.51 mi² (50.53 km²).

PERIOD OF RECORD.--July 1962 to September 1974, October 1975 to September 1976.

GAGE.--Water-stage recorder and V-notch sharp-crested weir. Datum of gage is 905.87 ft (276.109 m) above mean sea level.

REMARKS.--Records good except those for winter period, which are poor. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--13 years (water years 1963-74, 1976), 11.8 ft³/s (0.334 m³/s), 8.21 in/yr (209 mm/yr), 8,550 acre-ft/yr (10.5 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,040 ft³/s (29.5 m³/s) June 22, 1974, gage height, 12.91 ft (3.935 m); maximum gage height, 13.41 ft (4.087 m) Feb. 19, 1971, backwater from ice; minimum daily discharge, 0.04 ft³/s (0.001 m³/s) Aug. 31, 1976.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 187 ft³/s (5.30 m³/s) Mar. 12, gage height, 9.92 ft (3.024 m) at 0645 hours, no peak above base of 400 ft³/s (11.3 m³/s); minimum daily, 0.04 ft³/s (0.001 m³/s) Aug. 31.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.3	1.3	4.9	1.5	.82	7.2	9.8	22	11	5.3	.78	.34
2	1.2	1.3	3.5	1.2	.70	4.3	8.3	24	9.9	5.0	.69	.17
3	1.2	1.4	3.0	1.0	.80	2.0	7.4	20	9.2	4.7	.65	.20
4	1.3	1.5	2.8	.70	1.0	3.4	6.4	18	8.6	4.4	.62	.27
5	1.2	1.4	3.1	1.0	1.5	5.0	5.9	17	8.0	4.2	.57	.15
6	1.2	1.4	2.2	.88	2.5	2.7	5.4	15	7.8	4.0	.55	.15
7	1.1	1.4	2.5	.70	1.8	6.2	4.9	14	7.4	3.8	.52	.23
8	1.2	1.3	2.3	.60	1.6	6.2	4.6	14	6.9	3.5	.46	.11
9	1.2	1.8	2.2	.74	1.4	22	4.3	13	6.7	3.3	.46	.19
10	1.2	2.2	2.1	.98	1.3	17	4.2	13	6.8	2.9	.37	.08
11	1.2	1.4	2.0	1.2	1.2	14	4.0	12	6.8	2.7	.39	.13
12	1.3	1.3	1.8	1.1	1.1	111	3.7	12	6.4	2.5	.65	.10
13	1.2	1.2	2.1	1.0	1.1	27	3.8	12	16	2.4	.80	.08
14	1.2	1.1	3.2	.90	1.0	14	3.9	11	58	2.2	.42	.24
15	1.2	1.3	2.1	.80	1.0	11	5.6	11	21	2.0	.48	.15
16	1.2	1.2	2.0	.70	.98	9.9	4.5	13	16	1.9	.31	.23
17	1.2	1.2	1.3	.60	.96	8.3	19	15	13	1.8	.47	.24
18	1.3	1.2	.82	.50	.94	8.2	79	14	12	1.7	.47	.19
19	1.3	1.1	1.3	.60	.93	8.4	42	12	11	1.6	.32	.36
20	1.3	1.6	1.9	.70	.92	9.5	42	11	9.8	1.9	.36	.48
21	1.3	1.4	1.9	.76	.90	8.5	66	10	9.1	1.9	.47	.20
22	1.3	1.0	1.8	.80	1.0	7.6	42	10	8.7	1.6	.65	.16
23	1.3	1.1	1.8	.86	1.2	7.2	72	11	8.0	1.5	.41	.14
24	1.2	1.1	1.7	.90	1.7	6.8	69	11	8.4	1.2	.17	.14
25	1.2	1.0	1.7	1.0	3.5	6.3	52	9.8	7.5	1.1	.30	.15
26	1.2	1.1	1.7	.70	20	6.1	42	9.0	6.9	.98	.27	.26
27	1.3	1.0	1.6	.40	87	5.5	36	8.4	6.4	1.0	.22	.24
28	1.3	1.2	1.4	.60	39	5.2	31	8.3	6.3	2.3	.18	.23
29	1.2	6.0	1.2	.90	16	5.9	27	23	6.3	1.2	.12	.25
30	1.2	10	1.1	1.1	---	16	24	14	6.7	.99	.14	.28
31	1.2	---	1.3	1.0	---	12	---	12	---	.90	.04	---
TOTAL	38.2	52.5	64.32	26.42	193.85	384.4	728.7	419.5	322.6	76.47	13.31	6.14
MEAN	1.23	1.75	2.07	.85	6.68	12.4	24.3	13.5	10.8	2.47	.43	.20
MAX	1.3	10	4.9	1.5	87	111	79	24	58	5.3	.80	.48
MIN	1.1	1.0	.82	.40	.70	2.0	3.7	8.3	4.7	.90	.04	.08
CFSM	.06	.09	.11	.04	.34	.64	1.25	.69	.55	.13	.02	.01
IN.	.07	.10	.12	.05	.37	.73	1.39	.80	.62	.15	.03	.01
AC-FT	76	104	128	52	385	762	1450	832	640	152	26	12

WTR YR 1976 TOTAL 2326.41 MEAN 6.36 MAX 111 MIN .04 CFSM .33 IN 4.44 AC-FT 4610

*1 cfs = 0.028317 m^3/s,

Average daily discharge (cfs) at site 4 - water year 1977

IOWA RIVER BASIN

05464137 FOURMILE CREEK NEAR TRAER, IA

LOCATION.--Lat 42°12'07", long 92°33'44", NW1/4 SE1/4 sec.2, T.85 N., R.15 W., Tama County, Hydrologic Unit 07080205, on left bank 10 ft (3 m) downstream from bridge on county highway T69, 2.0 mi (3.2 km) upstream from mouth, and 5.0 mi (8.0 km) northwest of Traer.

DRAINAGE AREA.--19.51 mi² (50.53 km²).

PERIOD OF RECORD.--July 1962 to September 1974, October 1975 to current year.

GAGE.--Water-stage recorder and V-notch sharp-crested weir. Datum of gage is 905.87 ft (276.109 m) above mean sea level.

REMARKS.--Records good except those for winter period, which are poor. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--14 years (water years 1963-74, 76-77), 11.0 ft³/s (0.312 m³/s), 7.66 in/yr (195 mm/yr), 7,970 acre-ft/yr (9.872 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,040 ft³/s (29.5 m³/s) June 22, 1974, gage height, 12.91 ft (3.935 m); maximum gage height, 13.41 ft (4.087 m) Feb. 19, 1971, backwater from ice; no flow for many days in 1977.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 104 ft³/s (2.95 m³/s) Sept. 17, gage height, 8.83 ft (2.691 m), no peak above base of 400 ft³/s (11.3 m³/s); no flow for many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.22	.22	.02	.00	.00	.22	1.3	.13	.04	.00	.03	7.6
2	.05	.24	.01	.00	.00	.40	1.8	.18	.02	.00	.69	2.6
3	.07	.29	.01	.00	.00	.70	1.3	.13	.01	.00	.49	1.6
4	.13	.18	.01	.00	.00	1.1	2.2	.32	.00	.00	.11	1.0
5	.31	.17	.00	.00	.00	1.7	1.5	.58	.00	.00	.15	.81
6	.09	.22	.00	.00	.00	1.9	1.1	.31	.00	.00	1.2	.73
7	.32	.21	.00	.00	.00	1.4	.88	.24	.00	1.0	.35	.53
8	.06	.20	.00	.00	.00	1.2	.93	.14	.00	.19	1.5	.41
9	.12	.27	.00	.00	.00	.97	.80	.11	.01	.06	1.6	.38
10	.11	.23	.00	.00	.00	1.3	.70	.07	.00	.00	1.3	.26
11	.35	.17	.00	.00	.00	2.3	.58	.08	.00	.00	.35	.22
12	.08	.10	.00	.00	.00	2.6	.85	.07	.00	.00	.18	.24
13	.11	.13	.00	.00	.00	.60	1.6	.07	.00	.00	.10	.23
14	.16	.13	.00	.00	.00	.31	.65	.05	.00	.00	.08	.18
15	.25	.18	.00	.00	.00	.48	.65	.07	.00	.00	.20	.16
16	.12	.22	.00	.00	.00	.45	.45	.11	.00	.14	7.8	.15
17	.14	.27	.00	.00	.00	.49	.38	.05	.09	.13	5.8	7.9
18	.22	.32	.00	.00	.00	.68	.35	.08	.44	.09	3.0	37
19	.21	.32	.00	.00	.00	.36	.36	.07	.12	.12	1.3	15
20	.19	.33	.00	.00	.00	.45	1.2	.06	.02	.02	.83	7.4
21	.22	.30	.00	.00	.00	.48	1.1	.27	.00	.00	.37	4.6
22	.17	.26	.00	.00	.00	.44	.69	.85	.00	.00	.24	3.2
23	.24	.17	.00	.00	.00	.42	.38	.25	.04	.00	.18	3.0
24	.29	.21	.00	.00	.01	.40	.29	.10	.08	.00	.15	5.6
25	.25	.39	.00	.00	.02	.50	.22	.06	.06	.00	.11	4.4
26	.20	.36	.00	.00	.03	.70	.20	.05	.01	.00	.33	3.3
27	.18	.09	.00	.00	.06	1.1	.16	.04	.00	.00	1.1	2.6
28	.24	.05	.00	.00	.11	1.6	.22	.05	.00	.50	2.5	2.1
29	.18	.03	.00	.00	---	1.9	.21	.05	.00	4.7	2.2	1.9
30	.26	.02	.00	.00	---	.96	.17	.12	.00	.73	1.7	3.5
31	.29	---	.00	.00	---	.60	---	.12	---	.09	.97	---
TOTAL	5.83	6.30	.05	.00	.23	28.61	23.02	4.89	.94	7.77	37.31	118.61
MEAN	.19	.21	.002	.000	.008	.92	.77	.16	.031	.25	1.20	3.95
MAX	.35	.39	.02	.00	.11	2.6	2.2	.85	.44	4.7	7.6	37
MIN	.05	.02	.00	.00	.00	.22	.16	.04	.00	.00	.03	.16
CFSM	.01	.01	.000	.000	.000	.05	.04	.008	.002	.01	.06	.20
IN.	.01	.01	.00	.00	.00	.05	.04	.01	.00	.01	.07	.23
AC-FT	12	12	.10	.00	.5	57	46	9.7	1.9	15	74	235

CAL YR 1976	TOTAL	2183.57	MEAN 5.97	MAX 111	MIN .00	CFSM .31	IN 4.16	AC-FT	4330
WTR YR 1977	TOTAL	233.55	MEAN .64	MAX 37	MIN .00	CFSM .03	IN .45	AC-FT	463

Average daily discharge (cfs) at site 5 - water year 1977

IOWA RIVER BASIN

05464139 FOURMILE CREEK NEAR LINCOLN, IA

LOCATION.--Lat 42°13'32", long 92°36'39", in SW1/4 SW1/4 sec.28, T.86 N., R.15 W., Tama County, Hydrologic Unit 07080205, on left bank 10 ft (3 m) downstream from bridge on county highway, 1.0 mi (1.6 km) upstream from Half Mile Creek and 4.7 mi (7.6 km) southeast of Lincoln.

DRAINAGE AREA.--13.78 mi² (35.7 km²).

PERIOD OF RECORD.--October 1962 to September 1967, October 1969 to September 1974, June 1976 to current year.

GAGE.--Water-stage recorder and concrete control with V-notch sharp-crested weir. Datum of gage is 931.26 ft (283.848 m) above mean sea level.

REMARKS.--Records good except those for winter period which are poor. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--11 years, (1963-67, 1970-74, 76-77), 8.66 ft³/s (0.245 m³/s), 8.83 in/yr (217 mm/yr), 6,270 acre-feet/yr (7.73 hm³/s).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,480 ft³/s (41.1 m³/s) June 22, 1974, gage height, 13.98 ft (4.261 m); no flow Dec. 4 to Feb. 23, July 4, 5, 13, 14, 1977.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 83 ft³/s (2.35 m³/s) Sept. 17, gage height 8.89 ft (2.618 m); no peak above base of 350 ft³/s (9.91 m³/s); no flow Dec. 4 to Feb. 23, July 4, 5, 13, 14.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.06	.11	.01	.00	.00	.18	.32	.05	.01	.01	.31	3.6
2	.06	.08	.01	.00	.00	.35	1.1	.03	.02	.01	.27	1.2
3	.06	.07	.01	.00	.00	.54	.66	.04	.04	.01	.15	.41
4	.10	.06	.00	.00	.00	.70	1.4	.17	.04	.00	.03	.32
5	.12	.06	.00	.00	.00	.85	1.1	.24	.07	.00	.81	.26
6	.07	.09	.00	.00	.00	1.0	.64	.08	.04	.04	.30	.16
7	.07	.06	.00	.00	.00	.78	.53	.05	.04	.17	.13	.10
8	.08	.05	.00	.00	.00	.62	.41	.03	.10	.06	.61	.08
9	.08	.09	.00	.00	.00	.30	.34	.02	.09	.01	.58	.06
10	.08	.07	.00	.00	.00	.18	.28	.02	.02	.01	.31	.03
11	.09	.04	.00	.00	.00	1.5	.20	.02	.02	.01	.12	.02
12	.07	.03	.00	.00	.00	1.8	.17	.01	.03	.01	.04	.02
13	.06	.06	.00	.00	.00	.40	.19	.01	.03	.00	.04	.02
14	.06	.05	.00	.00	.00	.21	.23	.02	.02	.00	.04	.01
15	.05	.06	.00	.00	.00	.23	.21	.02	.01	.05	.11	.01
16	.06	.06	.00	.00	.00	.22	.15	.02	.02	.06	5.9	.01
17	.06	.08	.00	.00	.00	.23	.11	.01	.13	.01	3.5	10
18	.09	.10	.00	.00	.00	.43	.13	.01	.16	.03	1.3	50
19	.12	.10	.00	.00	.00	.15	.67	.01	.02	.01	.38	35
20	.10	.10	.00	.00	.00	.27	.67	.01	.01	.01	.22	6.0
21	.09	.10	.00	.00	.00	.29	.64	.37	.01	.02	.19	1.9
22	.08	.07	.00	.00	.00	.19	.27	.14	.03	.01	.11	1.2
23	.10	.04	.00	.00	.00	.21	.14	.02	.02	.01	.07	1.0
24	.15	.06	.00	.00	.01	.18	.09	.01	.01	.01	.04	2.2
25	.11	.12	.00	.00	.02	.21	.08	.01	.02	.01	.03	1.7
26	.09	.11	.00	.00	.03	.25	.07	.01	.01	.01	1.3	1.2
27	.08	.04	.00	.00	.05	.47	.04	.01	.01	.01	1.1	.88
28	.07	.04	.00	.00	.08	.66	.10	.02	.01	1.1	2.4	.68
29	.09	.01	.00	.00	---	1.1	.05	.03	.01	.28	2.9	.84
30	.16	.01	.00	.00	---	.48	.05	.02	.01	.02	.88	1.2
31	.13	---	.00	.00	---	.30	---	.02	---	.01	.46	---
TOTAL	2.68	2.02	.03	.00	.19	15.28	11.04	1.53	1.06	1.39	24.43	119.78
MEAN	.086	.067	.001	.000	.007	.49	.37	.049	.035	.064	.79	3.99
MAX	.16	.12	.01	.00	.08	1.8	1.4	.37	.16	1.1	5.9	50
MIN	.05	.01	.00	.00	.00	.15	.04	.01	.01	.00	.03	.01
CFSM	.006	.005	.000	.000	.001	.04	.03	.004	.003	.005	.06	.29
IN.	.01	.01	.00	.00	.00	.04	.03	.00	.00	.01	.07	.32
AC-FT	5.3	4.0	.06	.00	.4	30	22	3.0	2.1	3.9	48	238

WTR YR 1977 TOTAL 180.03 MEAN .49 MAX 50 MIN .00 CFSM .04 IN .49 AC-FT 357

Average daily discharge (cfs) at site 6 - water year 1977

IOWA RIVER BASIN

05464133 HALF MILE CREEK NEAR GLADBROOK, IA

LOCATION.--Lat 42°12'40", long 92°36'39", in SW1/4, SW1/4 sec.33, T.86 N., R.15 W., Tama County, Hydrologic Unit 07080205, on right bank 10 ft (3 m) downstream from bridge on county highway, 0.8 mi (1.3 km) upstream from mouth, and 5.3 mi (8.5 km) northeast of Gladbrook.

DRAINAGE AREA.--1.33 mi² (3.44 km²).

PERIOD OF RECORD.--October 1962 to September 1967, October 1969 to September 1974, June 1976 to current year.

GAGE.--Water-stage recorder and V-notch sharp-crested weir. Datum of gage is 948.16 ft (288.999 m) above mean sea level.

REMARKS.--Records fair except those for winter period, which are poor. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--11 years (1963-67, 1970-74, 76-77) 0.76 ft³/s (0.022 m³/s), 7.76 in/yr (197 mm/yr), 551 acre-foot/yr (0.679 hm³/s).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 307 ft³/s (8.69 m³/s) July 9, 1965, gage height, 9.24 ft (2.816 m); no flow several days in 1964-67, 1971-72, 1977.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 90 ft³/s (2.55 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage Height (ft)	Gage Height (m)
Aug. 15	2310	114	3.23	8.72	2.658
Sept. 17	1028	*151	4.28	*7.52	2.292

No flow for many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.01	.00	.00	.00	.01	.04	.01	.00	.00	.03	3.3
2	.00	.01	.00	.00	.00	.02	.12	.01	.00	.00	.03	.17
3	.00	.00	.00	.00	.00	.03	.06	.01	.00	.00	.00	.10
4	.00	.00	.00	.00	.00	.05	.19	.05	.00	.00	.01	.09
5	.00	.00	.00	.00	.00	.04	.12	.05	.00	.00	.09	.05
6	.00	.00	.00	.00	.00	.03	.05	.02	.00	.33	.01	.02
7	.00	.00	.00	.00	.00	.03	.04	.02	.00	.29	.01	.02
8	.00	.01	.00	.00	.00	.03	.04	.01	.00	.00	1.4	.02
9	.00	.01	.00	.00	.00	.03	.03	.00	.00	.00	.20	.01
10	.00	.00	.00	.00	.00	.03	.02	.00	.00	.00	.01	.00
11	.00	.00	.00	.00	.00	.19	.01	.00	.00	.00	.01	.00
12	.00	.00	.00	.00	.00	.92	.01	.00	.00	.00	.01	.01
13	.00	.00	.00	.00	.00	.10	.01	.00	.00	.00	.01	.01
14	.00	.00	.00	.00	.00	.03	.02	.00	.00	.00	.01	.00
15	.00	.00	.00	.00	.00	.02	.02	.00	.00	.00	3.9	.00
16	.00	.00	.00	.00	.00	.02	.01	.00	.00	.00	1.4	.00
17	.00	.00	.00	.00	.00	.03	.01	.00	.09	.00	.00	18
18	.00	.00	.00	.00	.00	.04	.01	.00	.01	.00	.00	2.0
19	.00	.00	.00	.00	.00	.02	.01	.00	.00	.00	.00	1.0
20	.00	.00	.00	.00	.00	.02	.03	.00	.00	.00	.00	.75
21	.00	.00	.00	.00	.00	.02	.08	.01	.00	.00	.00	.50
22	.00	.00	.00	.00	.00	.02	.03	.05	.00	.00	.00	.27
23	.00	.00	.00	.00	.00	.02	.02	.01	.00	.00	.00	.58
24	.00	.00	.00	.00	.01	.01	.01	.01	.00	.00	.00	1.0
25	.00	.00	.00	.00	.01	.02	.01	.01	.00	.00	.00	.49
26	.00	.01	.00	.00	.01	.02	.01	.00	.00	.00	.02	.33
27	.00	.01	.00	.00	.01	.05	.01	.00	.00	.00	.00	.26
28	.00	.00	.00	.00	.01	.08	.02	.00	.00	.00	.00	.21
29	.00	.00	.00	.00	---	.14	.01	.00	.00	.11	.42	.19
30	.01	.00	.00	.00	---	.05	.01	.00	.00	.04	.05	.97
31	.01	---	.00	.00	---	.02	---	.00	---	.00	.01	---
TOTAL	.02	.06	.00	.00	.05	2.14	1.06	.27	.10	.77	9.73	30.36
MEAN	.001	.002	.000	.000	.002	.069	.035	.009	.003	.025	.31	1.01
MAX	.01	.01	.00	.00	.01	.92	.19	.05	.09	.33	3.9	18
MIN	.00	.00	.00	.00	.00	.01	.01	.00	.00	.00	.00	.00
CFSM	.001	.002	.000	.000	.002	.05	.03	.007	.002	.02	.23	.76
IN.	.00	.00	.00	.00	.00	.06	.03	.01	.00	.02	.27	.85
AC-FT	.04	.1	.00	.00	.10	4.2	2.1	.5	.2	1.5	19	60

WTR YR 1977 TOTAL 44.56 MEAN .12 MAX 18 MIN .00 CFSM .09 IN 1.25 AC-FT 88

Average daily discharge (cfs) at site 4 - water year 1978

IOWA RIVER BASIN

05464137 FOURMILE CREEK NEAR TRAER, IA--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5.9	12	2.6	3.7	2.3	1.7	12	15	24	8.1	2.3	1.8
2	4.9	9.7	2.5	3.5	2.2	1.6	10	14	11	7.5	2.1	1.6
3	3.7	8.8	2.2	3.4	2.2	1.7	9.3	13	10	6.9	1.9	1.5
4	3.1	8.0	1.5	3.3	2.1	1.7	8.7	12	9.0	6.6	1.8	1.3
5	2.6	7.5	.85	3.3	2.1	1.7	18	12	7.8	6.0	1.7	1.2
6	2.2	7.2	1.2	4.2	2.0	1.7	39	11	7.2	6.1	1.6	1.1
7	5.4	6.7	1.9	6.0	2.0	1.8	18	14	6.8	6.0	1.5	1.1
8	12	6.3	1.7	5.8	2.0	1.8	11	15	5.7	5.3	1.4	.97
9	8.2	6.3	2.1	5.4	1.9	1.9	21	14	5.1	5.5	1.3	1.1
10	6.0	5.5	2.4	5.2	1.9	2.0	49	13	4.1	4.9	1.2	.89
11	5.2	5.0	2.3	4.9	1.9	2.2	28	12	3.9	4.6	1.2	.86
12	4.4	4.6	1.8	4.7	1.8	2.5	21	12	3.3	4.7	1.1	.96
13	3.9	4.7	2.2	4.6	1.8	2.7	15	44	2.2	4.5	1.0	4.2
14	3.6	4.7	3.3	4.5	1.8	3.0	13	32	1.9	4.0	.91	27
15	3.2	4.7	4.3	4.4	1.8	3.5	12	26	18	3.8	.88	8.9
16	2.8	4.4	6.5	4.4	1.8	17	10	23	8.0	3.5	.84	5.8
17	2.7	4.0	64	4.4	1.7	74	34	20	4.2	3.5	.79	5.4
18	2.5	3.7	39	4.3	1.7	55	186	18	2.8	4.1	.76	8.8
19	2.3	3.7	26	4.1	1.7	120	65	17	1.8	10	.69	12
20	2.1	3.7	16	3.9	1.7	130	51	16	40	6.2	.61	53
21	2.1	3.6	12	3.7	1.7	80	43	15	19	5.5	.87	38
22	2.4	3.5	11	3.5	1.7	54	37	14	15	5.3	1.2	25
23	11	3.4	10	3.3	1.7	35	37	14	13	4.6	.84	20
24	28	3.1	9.2	3.1	1.7	17	29	13	12	4.1	.65	16
25	21	2.8	8.5	3.0	1.7	13	24	12	11	3.9	.66	14
26	14	2.6	7.6	2.9	1.7	13	21	12	9.8	3.7	3.6	12
27	10	2.6	6.9	2.8	1.7	16	18	26	8.7	3.2	24	11
28	8.6	2.6	6.0	2.6	1.7	17	18	23	13	2.8	7.7	9.5
29	7.5	2.7	5.3	2.5	---	15	17	16	11	2.8	4.0	9.3
30	7.2	2.7	4.6	2.4	---	14	16	14	8.5	2.6	2.7	9.0
31	10	---	4.0	2.3	---	15	---	13	---	2.5	2.1	---
TOTAL	208.5	150.8	269.45	120.1	52.0	716.5	891.0	525	297.8	152.8	73.90	303.28
MEAN	6.73	5.03	8.69	3.87	1.86	23.1	29.7	16.9	9.93	4.93	2.38	10.1
MAX	28	12	64	6.0	2.3	130	186	44	40	10	24	53
MIN	2.1	2.6	.85	2.3	1.7	1.6	8.7	11	1.8	2.5	.61	.86
CFSM	.35	.26	.45	.20	.10	1.18	1.52	.87	.51	.25	.12	.52
IN.	.40	.29	.51	.23	.10	1.37	1.70	1.00	.57	.29	.14	.58
AC-FT	414	299	534	238	103	1420	1770	1040	591	303	147	602

CAL YR 1977	TOTAL	850.12	MEAN	2.33	MAX	64	MIN	.00	CFSM	.12	IN	1.62	AC-FT	1690
WTR YR 1978	TOTAL	3761.13	MEAN	10.3	MAX	186	MIN	.61	CFSM	.03	IN	7.17	AC-FT	7460

Average daily discharge (cfs) at site 5 - water year 1978

IOWA RIVER BASIN

05464130 FOURMILE CREEK NEAR LINCOLN--Continued

Peak discharges, above base of 350 ft³/s (9.91 m³/s) and annual maximum (*):

Water year	Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
1963	July 18	---	*342	9.69	*11.61	3.539
1964	Sept. 8	---	*110	3.12	*8.79	2.679
1965	Mar. 1	1115	402	11.4	12.01	3.661
	Apr. 5	1945	*421	11.9	*12.14	3.700
1966	Feb. 8	0915	400	11.3	ice jam	
1967	Jan. 24	---	*240	6.80	a*12.34	3.761
1970	Mar. 2	1730	*508	14.4	*12.59	3.837
1971	Mar. 13	1900	*510	14.4	*12.60	3.840
1972	Mar. 6	---	370	10.5	ice jam	
1973	Dec. 30	---	550	15.6	ice jam	
	Feb. 1	---	380	10.8	ice jam	
1974	June 9	0445	767	21.7	13.59	4.142
	June 22	0600	*893	25.3	*13.98	4.261
	July 9	---	400	11.3	--	
	July 26	1730	*814	14.6	*12.62	3.847
	May 23	0315	362	10.2	11.75	3.581
	July 8	0900	362	10.2	11.72	3.572
	June 13	2215	*379	10.7	*11.86	3.603
	Apr. 16	0900	410	11.6	12.07	3.679
	July 4	0700	*890	16.7	*12.96	3.950
	July 4	0500	366	10.4	11.77	3.587
	July 10	1945	390	11.0	11.93	3.636

a Ice jam

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.8	8.7	1.8	2.4	1.3	1.1	7.0	9.4	19	6.1	1.9	1.3
2	2.3	6.2	1.6	2.3	1.3	1.1	6.3	8.9	8.4	5.6	1.7	1.1
3	1.6	5.2	1.5	2.2	1.3	1.1	5.9	8.6	7.7	5.0	1.5	.96
4	1.3	4.4	1.2	2.2	1.2	1.1	5.6	8.1	7.3	4.7	1.3	.85
5	1.1	4.1	.60	2.2	1.2	1.1	9.5	7.7	7.2	4.4	1.2	.77
6	.83	4.0	.30	2.5	1.2	1.1	20	7.4	6.9	4.5	1.1	.76
7	2.6	3.7	1.2	3.0	1.2	1.1	12	8.6	6.7	4.4	1.0	.72
8	15	3.5	1.1	2.9	1.2	1.1	9.9	9.3	6.5	3.9	.97	.69
9	6.2	3.4	1.3	2.7	1.2	1.2	30	8.6	6.2	4.0	.90	.59
10	3.4	3.1	1.4	2.6	1.2	1.3	38	8.1	6.1	3.8	.83	.56
11	2.8	2.7	1.4	2.3	1.2	1.4	16	8.1	5.8	3.4	.80	.56
12	2.3	2.6	.90	2.1	1.2	1.5	12	8.0	5.3	3.4	.75	.55
13	2.0	2.6	.84	2.0	1.2	1.6	9.8	36	5.0	3.2	.67	2.9
14	1.8	2.6	1.6	1.9	1.2	1.6	8.9	23	5.3	2.9	.59	19
15	1.6	2.6	2.0	1.8	1.2	2.0	8.2	16	18	2.8	.58	6.1
16	1.4	2.5	2.7	1.7	1.2	10	7.8	14	7.4	2.6	.62	3.9
17	1.3	2.3	61	1.7	1.2	57	29	13	6.9	2.7	.55	4.3
18	1.2	2.1	28	1.6	1.2	41	155	11	6.2	2.9	.46	7.2
19	1.1	2.1	11	1.6	1.2	84	51	11	5.9	6.4	.45	9.1
20	.96	2.2	8.8	1.6	1.2	88	31	10	39	4.5	.38	76
21	.89	2.1	7.8	1.5	1.2	72	22	9.5	13	4.1	.60	36
22	1.1	1.9	7.0	1.5	1.2	58	17	9.2	11	3.9	.73	18
23	10	2.0	6.3	1.5	1.2	23	14	9.0	9.6	3.5	.51	14
24	40	1.9	5.8	1.5	1.2	13	9.7	8.5	8.9	3.1	.41	12
25	21	1.7	5.3	1.5	1.1	9.5	11	8.1	8.4	2.9	.41	9.7
26	9.2	1.6	4.8	1.5	1.1	9.0	14	7.7	7.8	2.8	2.4	8.3
27	6.4	1.6	4.2	1.1	1.1	9.7	13	34	6.9	2.5	20	7.8
28	4.9	1.7	3.8	1.2	1.1	9.6	12	11	13	2.3	5.0	6.9
29	4.0	1.8	3.4	1.2	---	9.2	11	9.2	7.4	2.2	2.7	6.8
30	3.7	1.8	3.1	1.3	---	8.0	10	7.2	6.4	2.1	1.9	6.2
31	10	---	2.7	1.3	---	9.2	---	9.2	---	2.0	1.5	---
TOTAL	164.78	88.5	184.44	58.3	33.5	527.5	603.6	358.3	279.2	112.3	84.41	262.60
MEAN	5.32	2.95	5.95	1.88	1.20	17.0	20.1	11.6	9.31	3.62	1.76	8.75
MAX	40	8.7	61	3.0	1.3	88	155	38	39	6.4	20	76
MIN	.83	1.6	.30	1.1	1.1	1.1	5.6	7.2	5.0	2.0	.38	.55
CFSM	.39	.21	.43	.14	.09	1.23	1.46	.84	.68	.26	.13	.64
IN.	.44	.24	.50	.16	.09	1.42	1.63	.97	.75	.30	.18	.71
AC-FT	327	176	366	116	66	1060	1200	711	554	223	108	521

CAL YR 1977 TOTAL 613.02 MEAN 1.68 MAX 61 MIN .00 CFSM .12 IN 1.68 AC-FT 1220
WTR YR 1978 TOTAL 2727.43 MEAN 7.47 MAX 155 MIN .30 CFSM .84 IN 7.36 AC-FT 5410

Average daily discharge (cfs) at site 6 - water year 1978

IOWA RIVER BASIN

05464133 HALF MILE CREEK NEAR GLADBROOK, IA

LOCATION.--Lat 42°12'40", long 92°36'39", in SW1/4, SW1/4 sec.33, T.86 N., R.15 W., Tama County, Hydrologic Unit 07080205, on right bank 10 ft (3 m) downstream from bridge on county highway, 0.8 mi (1.3 km) upstream from mouth, and 9.3 mi (15.5 km) northeast of Gladbrook.

DRAINAGE AREA.--1.33 mi² (3.44 km²).

PERIOD OF RECORD.--October 1962 to September 1967, October 1969 to September 1974, June 1976 to current year.

GAGE.--Water-stage recorder and V-notch sharp-crested weir. Datum of gage is 948.18 ft (288.999 m) NGVD.

REMARKS.--Records fair except those for winter period, which are poor. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--12 years (1963-67, 2020-74, 76-78) 0.78 ft³/s (0.022 m³/s), 7.96 in/yr (202 mm/yr), 565 acre-feet/yr (0.697 hm³/s).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 307 ft³/s (8.69 m³/s) July 9, 1965, gage height, 9.24 ft (2.816 m); no flow several days in 1964-67, 1971-72, 1977.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 90 ft³/s (2.55 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage Height (ft)	Gage Height (m)	Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage Height (ft)	Gage Height (m)
Mar. 19	1715	Ice jam	---	*9.98	3.042	Aug. 26	2135	*180	5.10	7.85	2.393
Apr. 18	0005	97	2.75	6.57	2.003	Sept. 19	2000	122	3.46	6.90	2.103
May 27	1705	114	3.23	6.78	2.067						

Minimum daily discharge, 0.01 ft³/s (0.003 m³/s) Aug. 24.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.88	.95	.22	.14	.11	.11	.82	1.1	3.2	.72	.16	.11
2	.49	.83	.21	.15	.11	.11	.76	1.1	1.9	.65	.14	.10
3	.38	.78	.20	.18	.11	.12	.74	1.1	1.5	.59	.12	.09
4	.31	.70	.20	.25	.11	.12	.65	1.0	1.3	.56	.11	.08
5	.26	.68	.12	.22	.10	.12	3.9	.95	1.1	.51	.10	.07
6	.22	.62	.11	.21	.10	.13	3.9	1.0	1.0	.52	.09	.07
7	2.5	.58	.13	.20	.10	.13	2.0	1.1	.99	.51	.08	.06
8	1.4	.53	.14	.20	.10	.14	1.6	1.3	.88	.44	.07	.06
9	.78	.50	.15	.20	.10	.14	5.3	1.2	.83	.47	.07	.05
10	.64	.42	.19	.19	.10	.15	2.6	1.1	.79	.39	.06	.05
11	.55	.36	.22	.19	.10	.16	1.9	1.0	.75	.37	.06	.05
12	.46	.35	.24	.19	.10	.18	1.4	1.1	.68	.38	.05	.05
13	.42	.34	.25	.18	.10	.21	1.1	8.5	.66	.35	.04	.20
14	.38	.34	.31	.18	.10	.35	.90	2.7	.69	.34	.04	1.4
15	.32	.32	.35	.18	.10	.51	.82	2.2	1.6	.32	.04	.40
16	.30	.30	.45	.18	.10	1.0	.75	2.1	.99	.28	.04	.30
17	.30	.28	1.8	.18	.09	1.3	7.4	1.8	.92	.28	.04	.40
18	.23	.26	.60	.17	.09	4.0	13	1.6	.79	.64	.03	.52
19	.23	.27	.60	.17	.09	6.8	1.9	1.6	.74	1.3	.03	7.7
20	.24	.26	.45	.16	.09	8.2	2.4	1.5	4.2	.44	.03	12
21	.24	.23	.40	.16	.09	5.0	2.5	1.3	1.4	.42	.05	4.2
22	.33	.25	.42	.16	.09	2.8	2.2	1.3	1.2	.40	.04	2.6
23	4.7	.24	.37	.15	.09	2.0	2.2	1.2	1.0	.33	.03	1.8
24	4.6	.22	.35	.15	.09	1.5	1.8	1.2	.89	.31	.01	1.4
25	2.4	.23	.33	.14	.10	1.0	1.7	1.1	.84	.29	.02	1.2
26	1.5	.24	.34	.14	.10	1.6	1.6	1.1	.75	.27	15	1.0
27	1.1	.23	.37	.13	.10	2.1	1.5	5.3	.67	.22	.40	.88
28	.89	.20	.32	.13	.11	1.7	1.4	2.3	3.2	.20	.24	.82
29	.79	.22	.25	.13	---	1.2	1.3	1.7	1.2	.19	.16	.80
30	.71	.23	.20	.12	---	1.3	1.2	1.4	.80	.18	.13	.74
31	1.2	---	.18	.12	---	1.1	---	2.3	---	.17	.12	---
TOTAL	29.75	11.96	10.35	5.25	2.77	45.28	71.24	55.25	37.48	12.95	17.60	39.20
MEAN	.96	.40	.33	.17	.099	1.46	2.37	1.78	1.25	.42	.57	1.31
MAX	4.7	.95	1.8	.25	.11	8.2	13	8.5	4.2	1.3	15	12
MIN	.22	.20	.11	.12	.09	.11	.65	.95	.66	.17	.01	.05
CFSM	.72	.30	.25	.13	.07	1.10	1.78	1.34	.94	.32	.43	.99
IN.	.83	.33	.29	.15	.08	1.27	1.99	1.54	1.05	.36	.49	1.10
AC-FT	59	24	21	10	5.5	90	141	110	74	26	35	78

CAL YR 1977 TOTAL 96.54 MEAN .26 MAX 18 MIN .00 CFSM .20 IN 2.70 AC-FT 191
WTR YR 1978 TOTAL 339.06 MEAN .93 MAX 15 MIN .01 CFSM .70 IN 9.48 AC-FT 673

Average daily discharge (cfs) at site 4 - water year 1979

IOWA RIVER BASIN

05464137 FOURMILE CREEK NEAR TRAER, IA

LOCATION.--Lat 42°12'07", long 92°33'44", NW1/4 SE1/4 sec.2, T.85 N., R.15 W., Tama County, Hydrologic Unit 07080205, on left bank 10 ft (3 m) downstream from bridge on county highway T65, 2.0 mi (3.2 km) upstream from mouth, and 5.0 mi (8.0 km) northwest of Traer.

DRAINAGE AREA.--19.51 mi² (50.53 km²).

PERIOD OF RECORD.--July 1962 to September 1974, October 1975 to current year.

REVISED RECORDS.--WDR IA-78-1:1963-74.

GAGE.--Water-stage recorder and V-notch sharp-crested weir. Datum of gage is 905.87 ft (276.109 m) NGVD.

REMARKS.--Records good except those for winter period, which are poor. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--16 years (water years 1963-74, 76-79), 11.9 ft³/s (0.337 m³/s), 8.28 in/yr (210 mm/yr), 8,620 acre-ft/yr (10.63 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,450 ft³/s (41.1 m³/s) Mar. 18, 1979, gage height, 11.93 ft (3.636 m); maximum gage height, 13.41 ft (4.087 m) Feb. 19, 1971, backwater from ice; no flow for many days in 1977.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 400 ft³/s (11.3 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Mar. 18	0815	*1,450	41.1	*11.93	3.636	July 3	1015	996	28.2	11.14	3.395
Mar. 29	2030	516	14.6	9.71	2.960	July 14	0545	954	27.0	11.02	3.359
June 12	2330	696	19.7	10.26	3.127	Aug. 21	2100	484	13.7	9.61	2.929
June 27	0200	414	11.7	9.39	2.862						

Minimum daily discharge, 2.3 ft³/s (0.065 m³/s) Sept. 22-23, 27-30.

REVISIONS.--Revised peak discharges and annual maximum (*) discharges for water years 1975, 1977 and 1978 have been revised as shown in the following table. They supersede figures published in the reports for 1976, 1977 and 1978.

Water year	Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)	Water year	Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
1976	Mar. 12	0645	*586	16.6	*9.92	3.024	1978	Apr. 18	0230	*430	12.2	*9.44	2.877
1977	Sep. 17	2315	*249	7.05	*8.83	2.691							

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	8.6	5.5	12	3.0	4.1	4.7	41	29	12	16	8.1	6.0
2	9.7	5.7	11	4.0	4.3	4.6	37	43	12	15	7.7	5.6
3	11	5.5	12	5.1	4.2	5.4	36	60	12	378	7.2	5.1
4	10	5.5	11	6.2	3.9	15	36	46	15	62	6.7	4.9
5	9.7	5.7	10	5.6	3.4	50	36	42	15	31	6.1	4.7
6	8.6	5.2	9.6	4.8	4.2	47	51	38	12	23	5.8	4.8
7	8.1	5.2	8.9	5.4	4.2	40	26	35	12	18	5.3	4.1
8	8.1	5.3	8.9	5.6	3.9	29	25	35	12	14	5.5	4.0
9	8.9	5.2	8.7	4.5	3.7	20	21	32	15	12	7.6	3.8
10	13	5.0	8.6	5.1	4.0	17	20	26	17	9.5	6.5	3.7
11	12	4.7	8.5	5.2	4.0	16	19	24	14	7.8	5.6	3.4
12	11	5.2	8.4	5.6	3.9	15	24	23	57	6.7	5.2	3.3
13	9.7	27	8.0	5.2	3.8	40	22	22	104	19	5.1	3.4
14	9.2	20	8.0	4.0	4.2	140	20	20	31	375	5.1	3.2
15	9.2	15	7.8	4.2	3.9	71	19	20	24	35	4.7	3.1
16	8.4	14	7.4	4.4	3.6	146	18	19	19	26	4.5	3.0
17	8.1	51	6.9	4.8	3.7	281	17	19	18	22	4.4	2.8
18	7.9	37	7.4	5.0	3.7	1030	16	18	26	19	4.0	2.7
19	7.5	29	6.7	4.8	3.8	335	23	19	18	17	27	2.7
20	7.5	25	7.0	4.8	3.9	84	136	17	32	15	52	2.7
21	7.5	20	7.7	4.7	4.0	37	84	16	19	14	80	2.5
22	7.0	19	6.0	4.5	3.8	33	51	16	16	13	69	2.3
23	6.6	18	6.2	4.6	4.1	86	41	15	14	12	25	2.3
24	6.8	15	5.4	4.5	3.8	26	36	15	12	11	16	2.8
25	7.0	15	6.0	4.6	3.8	42	39	14	12	11	12	2.9
26	6.2	15	5.6	4.5	3.9	30	49	15	12	10	11	2.4
27	6.2	13	5.3	4.5	4.1	25	40	14	144	9.4	9.8	2.3
28	5.9	13	5.9	4.4	4.4	45	35	13	27	9.1	8.6	2.3
29	5.9	13	5.3	4.1	---	284	34	14	22	9.0	7.8	2.3
30	5.9	12	4.3	4.2	---	169	30	13	19	9.3	6.8	2.3
31	5.5	---	4.2	4.1	---	55	---	13	---	8.3	5.4	---
TOTAL	256.7	434.7	238.7	146.0	110.3	3192.7	1082	745	774	1238.1	435.6	101.4
MEAN	8.28	14.5	7.70	4.71	3.94	103	36.1	24.0	25.8	39.9	14.1	3.38
MAX	13	51	12	6.2	4.4	1030	136	60	144	378	80	6.0
MIN	5.5	4.7	4.2	3.0	3.4	4.6	16	13	12	6.7	4.0	2.3
CFSM	.42	.74	.40	.24	.20	5.28	1.85	1.23	1.32	2.05	.72	.17
IN.	.49	.83	.46	.28	.21	6.09	2.06	1.42	1.48	2.36	.83	.19
AC-FT	509	862	473	290	219	6330	2150	1480	1540	2460	864	201

CAL YR 1978	TOTAL	4062.48	MEAN 11.1	MAX 186	MIN .61	CFSM .57	IN 7.75	AC-FT 8060				
WTR YR 1979	TOTAL	8766.20	MEAN 24.0	MAX 1030	MIN 2.3	CFSM 1.23	IN 16.69	AC-FT 17370				

Average daily discharge (cfs) at site 5 - water year 1979

IOWA RIVER BASIN

05464130 FOURMILE CREEK NEAR LINCOLN, IA

LOCATION.--Lat 42°13'32", long 92°38'29", in SW1/4 SW1/4 sec.28, T.86 N., R.15 W., Tama County, Hydrologic Unit 07080205, on left bank 10 ft (3 m) downstream from bridge on county highway, 1.0 mi (1.6 km) upstream from Half Mile Creek and 4.7 mi (7.6 km) southeast of Lincoln.

DRAINAGE AREA.--13.78 mi² (35.7 km²).

PERIOD OF RECORD.--October 1962 to September 1967, October 1969 to September 1974, June 1976 to current year.

REVISED RECORDS.--WDR IA-78-1:1963-74.

GAGE.--Water-stage recorder and concrete control with V-notch sharp-crested weir. Datum of gage is 931.28 ft (283.848 m) NGVD.

REMARKS.--Records good except those for winter period which are poor. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--13 years, (1963-67, 1970-74, 76-78), 9.02 ft³/s (0.255 m³/s), 8.89 in/yr (226 mm/yr), 6,530 acre-ft/yr (8.05 hm³/s).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,450 ft³/s (41.1 m³/s) June 22, 1974, gage height, 13.98 ft (4.261 m); no flow Dec. 4 to Feb. 23, July 4, 5, 13, 14, 1977.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 350 ft³/s (9.91 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage Height (ft)	Gage Height (m)
Mar. 18	2000	825	23.4	12.99	3.959
Mar. 29	1700	551	15.6	12.27	3.740
June 12	2030	844	23.9	13.03	3.972
June 27	0445	579	16.4	12.37	3.770
July 3	1015	*1,100	31.2	*13.51	4.118
July 14	0230	1,080	30.6	13.48	4.109
Aug. 21	2130	482	13.6	12.01	3.661

Minimum daily discharge, 1.2 ft³/s (0.034 m³/s) Sept. 21-23, 28-29.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5.4	2.8	8.7	2.4	2.6	2.2	21	16	7.6	11	6.0	3.9
2	5.6	3.8	7.9	3.4	2.6	2.1	19	29	7.6	10	5.8	3.6
3	6.9	3.8	7.8	4.4	2.6	10	25	34	7.4	293	5.2	3.4
4	6.7	3.6	7.6	4.6	2.3	35	25	25	8.1	37	4.7	3.2
5	5.6	3.6	7.2	3.9	2.1	33	24	21	8.1	23	4.4	3.0
6	4.5	3.2	6.4	3.4	2.3	28	17	20	7.6	18	4.1	2.9
7	4.2	3.4	5.8	3.7	2.4	20	16	18	7.4	15	3.8	2.6
8	4.4	3.5	6.6	3.9	2.3	14	15	18	7.1	14	3.6	2.4
9	5.2	3.4	6.4	3.2	2.2	11	13	17	9.6	12	4.6	2.3
10	8.7	3.2	6.3	3.4	2.3	10	12	16	11	11	4.6	2.2
11	7.9	2.9	6.2	3.3	2.4	8.5	12	15	9.6	11	3.8	2.0
12	7.4	3.5	6.0	3.2	2.4	12	15	14	123	9.9	3.6	2.0
13	6.4	20	5.8	2.7	2.3	33	13	14	66	14	3.8	1.9
14	5.4	13	5.6	2.3	2.3	100	12	13	23	302	3.6	1.8
15	5.8	10	5.5	2.6	2.3	50	11	12	19	28	3.2	1.7
16	5.6	9.3	5.4	2.8	1.9	143	11	12	16	17	3.2	1.6
17	5.8	40	5.4	3.1	1.9	162	11	12	14	14	3.0	1.5
18	5.6	29	5.6	2.9	2.0	600	10	12	22	13	2.8	1.4
19	5.2	21	5.4	3.0	2.0	205	14	12	15	11	20	1.4
20	5.2	17	5.0	3.1	2.1	36	87	11	29	11	33	1.4
21	5.2	15	5.2	3.1	2.0	24	55	11	13	9.6	64	1.2
22	4.7	14	4.7	3.0	2.0	20	35	10	12	9.0	38	1.2
23	4.4	12	4.8	2.9	2.2	61	30	9.9	11	8.4	15	1.2
24	4.9	11	4.6	2.9	2.0	13	26	9.6	10	8.4	9.9	1.8
25	4.9	11	4.9	2.9	1.8	25	29	9.3	9.6	7.9	7.9	1.6
26	4.2	10	4.4	2.8	1.9	13	33	9.6	9.3	7.4	7.1	1.4
27	4.2	9.6	4.4	2.7	2.0	12	27	9.0	108	7.1	6.4	1.3
28	3.9	9.3	4.7	2.6	2.1	44	21	8.7	20	6.9	5.8	1.2
29	3.9	9.3	3.8	2.5	---	299	20	8.7	15	6.7	5.2	1.2
30	3.9	8.7	3.6	2.6	---	93	17	8.1	13	6.9	4.6	1.6
31	3.6	---	3.4	2.7	---	33	---	7.9	---	6.4	4.2	---
TOTAL	165.3	310.9	175.1	95.8	61.3	2151.8	676	442.8	629.0	956.6	294.2	89.7
MEAN	5.33	10.4	5.65	3.09	2.19	69.4	22.5	14.3	21.0	30.9	9.49	1.99
MAX	8.7	40	8.7	4.6	2.6	600	87	34	123	302	64	3.9
MIN	3.6	2.9	3.4	2.3	1.8	2.1	10	7.9	7.1	6.4	2.8	1.2
CFSM	.39	.76	.41	.22	.16	5.04	1.63	1.04	1.52	2.24	.69	.14
IN.	.45	.84	.47	.26	.17	5.81	1.82	1.20	1.70	2.58	.79	.16
AC-FT	328	617	347	190	122	4270	1340	878	1250	1900	584	178

CAL YR 1978	TOTAL	2941.01	MEAN	8.06	MAX 155	MIN .38	CFSM .59	IN 7.94	AC-FT	5830		
WTR YR 1979	TOTAL	6018.50	MEAN	16.5	MAX 600	MIN 1.2	CFSM 1.20	IN 16.25	AC-FT	11940		

Average daily discharge (cfs) at site 6 - water year 1979

IOWA RIVER BASIN

05464133 HALF MILE CREEK NEAR GLADBROOK, IA

LOCATION.--Lat 42°12'40", long 92°36'39", in SW1/4, SW1/4 sec.33, T.86 N., R.15 W., Tama County, Hydrologic Unit 07080205, on right bank 10 ft (3 m) downstream from bridge on county highway, 0.8 mi (1.3 km) upstream from mouth, and 5.3 mi (8.5 km) northeast of Gladbrook.

DRAINAGE AREA.--1.33 mi² (3.44 km²).

PERIOD OF RECORD.--October 1962 to September 1967, October 1969 to September 1974, June 1978 to current year.

GAGE.--Water-stage recorder and V-notch sharp-crested weir. Datum of gage is 948.16 ft (288.999 m) NGVD.

REMARKS.--Records fair except those for winter period, which are poor. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--13 years (1963-67, 1970-74, 76-79) 0.82 ft³/s (0.023 m³/s), 8.37 in/yr (213 mm/yr), 594 acre-ft/yr (0.732 hm³/s).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 611 ft³/s (17.3 m³/s) June 12, 1979, gage height, 9.57 ft (2.917 m); no flow several days in 1964-67, 1971-72, 1977.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 90 ft³/s (2.55 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage Height (ft)	Gage Height (m)	Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage Height (ft)	Gage Height (m)
June 12	1850	*611	17.3	*9.57	2.917	July 3	1000	608	17.2	9.56	2.914
June 27	0040	216	6.12	7.72	2.353	Aug. 21	--	364	10.3	8.57	2.612

Minimum daily discharge, 0.08 ft³/s (0.002 m³/s) Sept. 29-30.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.71	.57	.82	.25	.26	.23	2.5	2.0	.91	2.1	.55	.80
2	1.0	.57	.79	.35	.25	.23	2.6	4.2	.91	1.9	.54	.71
3	.91	.57	.79	.41	.25	2.0	2.9	3.0	.85	31	.52	.66
4	.85	.57	.76	.44	.25	8.0	3.0	2.3	2.7	3.0	.50	.62
5	.79	.57	.71	.38	.25	3.2	2.8	2.1	1.8	2.2	.49	.58
6	.73	.57	.66	.33	.25	1.1	2.4	2.1	1.2	1.9	.48	.56
7	.71	.57	.63	.36	.25	.90	2.3	2.0	1.1	1.6	.48	.53
8	.68	.57	.63	.38	.24	.80	2.1	2.1	1.1	1.4	.48	.51
9	.91	.57	.62	.31	.24	.70	1.9	2.0	1.6	1.3	.54	.46
10	.94	.57	.59	.33	.24	.62	1.8	2.0	1.5	1.2	.50	.44
11	.88	.57	.59	.32	.24	.60	1.8	1.9	1.3	1.0	.46	.41
12	.79	.55	.58	.30	.24	.80	2.0	1.8	3.1	.89	.42	.39
13	.73	.51	.57	.28	.24	3.0	1.7	1.7	2.1	.91	.39	.37
14	.71	.88	.56	.23	.24	10	1.5	1.7	2.1	12	.37	.36
15	.71	1.0	.55	.27	.23	2.1	1.4	1.5	1.1	3.1	.36	.34
16	.63	1.1	.54	.31	.22	7.7	1.3	1.5	1.1	2.0	.36	.31
17	.61	5.7	.51	.34	.21	8.0	1.3	1.4	1.1	1.7	.33	.30
18	.61	2.8	.52	.33	.21	25	1.2	1.4	1.1	1.4	.31	.28
19	.59	2.1	.52	.34	.22	8.5	2.8	1.8	1.1	1.2	1.7	.27
20	.59	1.8	.52	.33	.22	3.3	4.8	1.7	.91	1.0	4.0	.26
21	.57	1.6	.48	.33	.22	3.1	3.1	1.6	.71	.94	7.8	.24
22	.57	1.5	.46	.32	.21	2.9	3.1	1.5	.68	.86	3.0	.22
23	.57	1.3	.46	.31	.21	5.2	2.7	1.4	.82	.80	2.0	.21
24	.57	1.2	.45	.30	.20	5.8	2.5	1.7	.82	.76	1.9	.20
25	.59	1.1	.43	.29	.19	3.3	3.2	1.7	.82	.72	1.8	.20
26	.57	1.0	.40	.29	.20	2.1	3.0	1.8	.82	.68	1.6	.19
27	.59	.97	.39	.28	.21	2.0	2.5	1.1	9.8	.66	1.4	.18
28	.59	.91	.38	.28	.22	2.3	2.3	1.0	2.2	.64	1.2	.12
29	.59	.91	.36	.27	---	4.8	2.2	1.0	2.2	.62	1.1	.08
30	.59	.82	.32	.27	---	2.5	2.1	.97	2.2	.60	.97	.08
31	.59	---	.31	.27	---	2.5	---	.94	---	.58	.88	---
TOTAL	21.47	34.02	16.90	9.80	6.41	123.28	70.8	54.91	49.75	80.66	36.64	10.98
MEAN	.69	1.13	.55	.32	.23	3.98	2.36	1.77	1.66	2.60	1.18	.36
MAX	1.0	5.7	.82	.44	.26	25	4.8	4.2	9.8	31	7.0	.80
MIN	.57	.51	.31	.23	.19	.23	1.2	.94	.68	.58	.31	.08
CFSM	.52	.85	.41	.24	.17	2.99	1.77	1.33	1.25	1.96	.89	.27
IN.	.60	.95	.47	.27	.18	3.45	1.98	1.53	1.39	2.25	1.02	.30
AC-FT	43	67	34	19	13	245	140	109	99	160	73	22

CAL YR 1978	TOTAL 359.39	MEAN .98	MAX 15	MIN .01	CFSM .74	IN 10.04	AC-FT 713				
WTR YR 1979	TOTAL 515.52	MEAN 1.41	MAX 31	MIN .08	CFSM 1.06	IN 14.41	AC-FT 1020				

APPENDIX E

SEDIMENTATION, PARTICLE SIZE, AND STREAM CROSS SECTION MEASUREMENTS

TABLE E1- 1. PARTICLE SIZE DATA FOR SEDIMENT IN TRANSPORT FOR 1976 SITE 1

SITE	DATE	HOUR	MIN	FLOW RATE CMS	CONC PPM	EQUIVALENT SPHERICAL DIAMETER (MICRONS) 50	40	32	24	16	12	8	6	4	3	2	1
						PERCENT FINER THAN											
1	5/29/76	7	24	0.0010	26036	100	100	99	92	70	40	12	9	6	4	3	2
1	5/29/76	7	25	0.0240	36579	100	99	99	93	79	67	55	47	37	31	24	13
1	5/29/76	7	25	0.0240	42872	99	98	96	85	55	37	23	17	10	7	4	2
1	5/29/76	7	31	0.2151	46351	100	99	98	96	84	71	40	37	20	14	8	2
1	6/13/76	18	42	0.0127	26773	98	98	98	95	84	75	64	55	43	35	26	15
1	6/13/76	18	47	0.0202	29930	99	99	99	95	82	72	61	53	42	35	26	14
1	6/13/76	18	54	0.0569	24940	100	100	98	94	80	71	60	49	36	28	19	9
1	6/13/76	18	55	0.0814	18437	100	100	100	95	81	69	54	44	33	26	18	7
1	6/13/76	18	57	0.1080	18745	100	100	99	95	83	74	62	52	38	30	19	8
1	6/13/76	18	58	0.1080	20213	100	100	98	93	80	72	61	52	39	32	22	11
1	6/13/76	18	59	0.1080	17583	100	100	99	98	92	85	73	61	46	35	24	11
1	6/13/76	19	1	0.1000	14570	100	100	100	100	93	86	74	62	46	36	24	11
1	6/13/76	19	3	0.0907	13026	100	100	100	98	90	82	71	59	45	35	24	11
1	6/13/76	19	5	0.0860	11529	100	99	99	98	92	86	76	64	49	38	26	12
1	6/13/76	19	7	0.0860	10846	100	100	100	97	91	85	73	61	47	37	26	11
1	6/13/76	19	9	0.0814	9910	100	100	100	98	90	84	72	61	45	35	24	11
1	6/13/76	19	11	0.0748	9905	100	100	100	98	93	86	75	64	49	38	26	12
1	6/13/76	19	13	0.0609	9084	100	100	100	100	98	92	83	71	55	43	28	12
1	6/13/76	19	15	0.0502	8116	100	100	100	99	94	88	79	67	51	42	28	12
1	6/13/76	19	17	0.0375	7340	100	100	99	98	94	89	79	68	51	40	25	12
1	6/13/76	19	18	0.0321	5363	100	100	100	99	88	79	69	61	49	40	30	15
1	6/13/76	19	19	0.0266	6967	100	100	100	100	95	93	85	75	47	46	31	14
1	6/13/76	19	30	0.0213	10649	100	100	100	99	90	82	70	60	46	37	26	12
1	6/13/76	19	36	0.0486	7675	100	100	100	97	87	80	68	57	44	35	23	10
1	6/13/76	19	38	0.0648	8157	100	100	100	97	87	78	65	53	38	30	19	8
1	6/13/76	19	40	0.0748	9370	100	100	100	98	90	82	69	56	42	33	21	9
1	6/13/76	19	42	0.0814	9516	100	100	100	99	90	82	70	58	42	32	21	8
1	6/13/76	19	44	0.0791	9725	100	100	100	99	90	81	68	56	41	32	21	9
1	6/13/76	19	46	0.0728	9331	100	100	100	99	93	85	71	58	42	31	19	7
1	6/13/76	19	48	0.0609	8749	100	100	100	99	94	89	77	65	50	39	27	12
1	6/13/76	19	50	0.0502	7142	100	100	100	99	96	90	79	66	51	40	26	12
1	6/13/76	19	52	0.0389	6652	100	100	100	100	96	91	81	69	52	40	27	11
1	6/13/76	19	54	0.0307	5631	100	100	100	100	98	95	87	78	62	50	34	15
1	6/13/76	19	56	0.0224	5753	100	100	100	99	96	90	81	71	55	43	30	14
1	6/13/76	20	27	0.0435	6721	100	100	100	100	90	81	68	57	42	33	22	10
1	6/13/76	20	29	0.0552	5543	100	100	100	97	90	80	69	57	42	33	21	9
1	6/13/76	20	31	0.0648	6849	100	100	100	96	86	77	65	52	38	28	19	8
1	6/13/76	20	33	0.0688	8113	100	100	99	98	89	81	68	56	42	33	22	9
1	6/13/76	20	35	0.0668	7805	100	100	100	100	95	88	75	62	46	35	23	10
1	6/13/76	20	37	0.0629	7174	100	100	100	99	92	84	72	60	44	32	20	9
1	6/13/76	20	39	0.0569	6655	100	100	100	99	93	86	75	63	46	36	24	10
1	6/13/76	20	41	0.0502	5905	100	100	100	99	94	87	75	64	47	37	25	11
1	6/13/76	20	43	0.0469	5272	100	100	99	98	92	87	76	65	49	39	25	11
1	6/13/76	20	45	0.0452	4803	100	100	100	99	93	86	75	64	50	40	26	12
1	6/13/76	20	47	0.0452	4615	100	100	100	99	91	85	76	65	50	39	26	12
1	6/13/76	20	49	0.0452	4286	100	100	100	99	93	86	76	66	52	42	30	14
1	6/13/76	20	51	0.0452	3869	95	95	95	95	92	89	81	73	60	51	37	15
1	6/13/76	20	53	0.0452	3994	100	100	100	99	93	87	76	64	49	38	26	12
1	6/13/76	20	55	0.0452	4025	100	100	99	99	98	90	81	70	53	42	28	12
1	6/13/76	20	57	0.0436	4098	99	99	99	99	96	91	81	70	55	45	30	12
1	6/13/76	20	59	0.0402	3857	100	100	100	98	90	84	72	60	47	34	22	10

TABLE E1- 1. CONCLUDED

SITE	DATE	HOUR	MIN	FLOW RATE CMS	CONC PPM	EQUIVALENT SPHERICAL DIAMETER (MICRONS) 50	40	32	24	16	12	8	6	4	3	2	1
						PERCENT FINER THAN											
1	6/13/76	21	1	0.0375	3898	100	100	100	100	96	91	82	73	60	50	36	17
1	6/13/76	21	3	0.0348	3556	100	100	100	99	93	84	73	61	45	35	23	10
1	6/13/76	21	5	0.0334	3542	100	99	99	97	83	71	60	51	39	30	20	9
1	6/13/76	21	7	0.0307	3309	100	100	99	99	92	85	73	62	48	38	25	11
1	6/13/76	21	9	0.0293	3590	100	100	100	99	93	85	73	63	49	39	28	12
1	6/13/76	21	17	0.0266	3368	99	99	98	97	89	83	73	64	51	42	30	12
1	6/13/76	21	27	0.0192	3088	100	99	99	97	87	78	68	60	49	40	28	12
1	6/13/76	21	40	0.0052	2460	99	99	99	95	85	77	66	58	43	34	21	6

TABLE E1- 2. PARTICLE SIZE DATA FOR SEDIMENT IN TRANSPORT FOR 1977 SITE 1

SITE	DATE	HOUR	MIN	FLOW RATE CMS	CONC PPM	EQUIVALENT SPHERICAL DIAMETER (MICRONS) 50	40	32	24	16	12	8	6	4	3	2	1
						PERCENT FINER THAN											
1	4/19/77	17	13	0.4938	100957	10	100	99	92	77	65	51	42	32	21	19	10
1	4/19/77	17	15	0.4219	95407	10	99	98	93	78	69	56	47	36	31	23	13
1	4/19/77	17	16	0.3789	89988	99	99	98	95	82	72	56	44	32	26	17	6
1	4/19/77	17	17	0.3273	87217	99	98	97	92	80	68	55	46	35	29	21	10
1	4/19/77	17	18	0.2691	82941	100	100	99	96	84	73	59	50	39	33	24	13
1	4/19/77	17	23	0.1138	50642	99	99	99	99	98	96	91	85	75	66	53	32
1	4/19/77	17	26	0.0668	47013	100	100	99	98	94	88	79	70	58	51	40	24
1	4/19/77	17	30	0.0321	24801	99	99	98	98	98	97	94	89	79	70	56	34
1	4/19/77	17	33	0.0192	24445	100	100	100	98	93	87	78	68	57	49	39	23
1	4/19/77	17	36	0.0111	29733	100	100	100	99	99	98	95	90	82	75	64	45
1	4/19/77	17	39	0.0068	22882	99	98	98	97	96	94	92	87	80	74	63	45
1	4/19/77	17	42	0.0041	19342	100	100	99	99	99	97	95	91	85	79	70	51
1	4/19/77	17	45	0.0025	17821	100	100	99	99	99	98	97	94	89	83	73	53
1	4/19/77	17	48	0.0018	17856	99	99	99	99	98	97	94	91	85	79	69	50
1	4/19/77	17	51	0.0011	13691	100	100	99	99	99	98	97	94	90	85	74	52
1	4/19/77	17	54	0.0008	12578	100	100	99	99	98	97	96	94	90	85	75	53
1	8/15/77	22	19	0.0688	22950	99	99	99	94	79	68	57	49	41	35	27	16
1	8/15/77	22	21	0.1269	35629	100	99	98	91	76	67	57	50	43	38	31	20
1	8/15/77	22	23	0.1422	35169	100	100	99	92	77	67	57	49	41	36	29	17
1	8/15/77	22	25	0.1544	25510	99	99	98	92	78	70	60	52	43	36	28	16
1	8/15/77	22	27	0.2578	17668	100	100	98	92	79	68	57	48	37	30	22	10
1	8/15/77	22	29	0.2751	14419	100	99	98	95	81	71	60	51	40	33	24	6
1	8/15/77	22	31	0.2410	9824	100	100	99	85	84	75	63	52	39	31	21	9
1	8/15/77	22	33	0.1914	9051	100	100	98	95	85	75	62	52	37	28	18	6
1	8/15/77	22	35	0.1391	8651	100	100	99	98	90	82	71	60	46	37	26	12
1	8/15/77	22	37	0.0976	7439	100	100	99	98	91	85	73	62	48	37	25	12
1	8/15/77	22	39	0.0710	6537	100	99	98	97	91	84	73	62	47	38	25	9
1	8/15/77	22	41	0.0536	5602	100	100	98	96	90	83	73	62	46	36	23	7
1	8/15/77	22	43	0.0402	4977	100	100	98	97	92	88	78	66	51	40	25	10
1	8/15/77	22	45	0.0293	4503	100	100	98	96	89	83	73	60	46	33	19	2
1	8/15/77	22	47	0.0224	4206	100	100	99	96	93	88	79	69	53	40	24	7
1	8/28/77	0	41	0.0018	2518	100	100	100	99	99	97	92	85	73	64	49	28
1	8/28/77	0	43	0.0015	2563	100	100	100	99	98	94	89	82	71	63	50	30
1	8/28/77	0	46	0.0012	2574	100	100	100	99	98	94	90	82	72	63	50	30
1	8/28/77	0	49	0.0006	2204	100	99	99	98	95	94	88	80	70	61	45	25
1	8/28/77	0	54	0.0006	1456	100	100	98	98	96	96	90	84	75	65	49	25
1	8/28/77	1	1	0.0025	1018	100	100	98	98	95	95	91	87	76	70	53	30
1	9/18/77	5	47	0.0011	1313	100	100	100	100	97	95	83	72	56	45	25	3
1	9/18/77	5	59	0.0020	2065	99	99	99	99	92	84	73	62	48	40	26	10
1	9/18/77	6	8	0.0068	1603	100	100	100	98	95	87	78	67	50	39	23	6

TABLE EI- 3. PARTICLE SIZE DATA FOR SEDIMENT IN TRANSPORT FOR 1978 SITE 1

						EQUIVALENT SPHERICAL DIAMETER (MICRONS)											
						50	40	32	24	16	12	8	6	4	3	2	1
SITE	DATE	HOUR	MIN	FLOW RATE CMS	CONC PPM	PERCENT FINER THAN											
1	4/17/78	14	14	0.3013	4650	100	100	100	99	96	94	90	85	75	66	54	32
1	4/17/78	14	24	0.3015	5175	100	100	99	99	98	96	92	85	73	65	53	35
1	4/17/78	14	40	0.0018	6966	99	99	99	99	98	96	91	85	74	66	54	34
1	4/17/78	14	45	0.0018	5826	99	99	99	99	97	94	90	84	74	68	57	39
1	4/17/78	15	0	0.0014	5728	99	99	99	99	98	96	92	86	76	68	56	36
1	4/17/78	15	5	0.0012	4702	100	100	100	99	98	94	88	82	72	65	53	33
1	4/17/78	15	10	0.0010	4125	100	100	100	100	99	97	92	87	76	70	57	37
1	4/17/78	15	15	0.0014	5026	100	99	99	98	98	94	88	81	70	63	51	32
1	4/17/78	15	20	0.0018	6480	100	100	100	100	98	97	93	83	75	63	55	27
1	4/17/78	15	25	0.0015	5575	100	100	99	99	98	95	88	76	49	43	35	23
1	4/17/78	15	30	0.0014	5504	100	100	100	100	98	96	90	83	74	66	54	32
1	4/17/78	15	35	0.0012	4620	100	100	99	99	99	97	93	87	77	69	56	35
1	4/17/78	15	40	0.0010	3630	100	100	100	100	99	96	88	77	42	34	25	13
1	4/17/78	15	45	0.0013	3804	99	99	99	99	97	95	90	83	73	65	63	31
1	4/17/78	15	50	0.0012	3628	100	100	100	100	98	94	87	76	59	49	37	20
1	4/17/78	15	55	0.0010	3020	99	99	99	99	98	96	93	88	79	71	58	38
1	4/17/78	16	0	0.0009	2800	100	100	100	99	98	97	94	90	80	73	61	40
1	4/17/78	16	10	0.0004	2073	100	99	99	99	99	97	94	86	82	74	63	43
1	4/17/78	16	25		1908	99	99	99	99	98	96	94	88	78	71	57	36
1	4/17/78	23	30	0.0057	10156	99	99	99	98	93	87	79	72	63	56	45	31
1	4/17/78	23	51	0.0057	6578	100	100	100	100	97	91	79	70	61	55	46	30
1	4/18/78	0	1	0.0057	5867	100	100	99	98	92	82	71	65	56	50	40	26
1	4/18/78	0	10	0.0052	4843	100	100	100	99	90	82	74	68	59	51	41	24
1	4/18/78	0	20	0.0052	4146	99	99	98	96	89	84	77	72	63	57	47	29
1	4/18/78	0	30	0.0051	3629	100	100	99	97	87	79	70	64	55	48	38	22
1	5/13/78	2	3	0.0005	2783	99	99	99	98	96	94	91	87	86	83	79	67
1	5/13/78	2	21	0.0005	4046	100	100	100	100	99	98	95	94	91	90	87	82
1	5/13/78	3	17	0.0003	4355	99	99	98	97	97	95	94	93	91	90	87	82
1	5/13/78	3	48	0.0008	3481	99	99	99	98	97	97	97	95	94	92	89	81
1	5/13/78	4	42	0.0005	3982	99	99	98	97	97	97	97	97	95	92	90	76
1	5/27/78	16	39	0.0127	45545	99	99	98	93	77	63	48	40	30	23	16	7
1	5/27/78	16	41	0.0171	42146	99	98	97	95	83	67	49	39	29	23	16	7
1	5/27/78	16	44	0.0224	32694	100	100	98	95	82	69	56	45	35	27	20	9
1	5/27/78	16	47	0.0509	27178	100	99	98	93	77	64	50	41	30	24	16	6
1	5/27/78	16	49	0.0569	40213	100	99	99	94	81	67	52	42	32	26	18	8
1	5/27/78	16	51	0.0536	36344	99	99	97	95	85	73	57	47	36	29	20	8
1	5/27/78	16	53	0.0389	32911	99	99	99	96	90	78	60	49	37	30	21	10
1	5/27/78	16	55	0.0256	28829	99	99	99	97	91	83	72	62	49	40	29	14
1	5/27/78	17	10	0.0123	11173	99	99	99	98	97	93	85	77	62	51	37	17
1	5/27/78	17	33	0.0019	3844	99	99	98	98	95	91	85	80	71	64	52	29
1	5/31/78	22	24	0.0052	31427	99	99	98	97	93	86	72	61	47	39	30	16
1	5/31/78	22	27	0.0040	21783	99	99	99	98	96	92	85	75	61	51	37	20
1	5/31/78	22	30	0.0038	17284	99	99	99	99	98	95	87	80	67	56	42	24
1	5/31/78	22	33	0.0034	10920	100	100	100	99	99	97	91	86	75	66	51	28
1	5/31/78	22	46	0.0013	6111	99	99	99	99	99	98	94	88	77	68	54	32
1	5/31/78	22	58	0.0009	5702	99	99	99	99	98	97	94	87	70	59	46	27
1	6/15/78	1	21	0.0003	16794	100	100	99	98	93	85	76	66	52	43	30	15
1	6/15/78	1	26	0.0025	12568	100	100	99	99	97	93	85	77	64	53	38	18
1	6/15/78	1	37	0.0017	6419	100	99	99	99	97	93	84	76	62	52	37	18
1	6/15/78	1	47	0.0068	14097	100	100	98	95	85	75	65	54	42	32	23	10
1	6/15/78	1	53	0.0181	16243	99	99	99	97	87	78	65	55	41	32	22	9

TABLE E1- 3. CONCLUDED

SITE	DATE	HOUR	MIN	FLOW RATE CMS	CONC PPM	EQUIVALENT SPHERICAL DIAMETER (MICRONS) 50	40	32	24	16	12	8	6	4	3	2	1
						PERCENT FINER THAN											
1	6/15/78	1	56	0.0202	15914	99	99	98	97	90	79	67	56	44	36	25	11
1	6/15/78	2	2	0.0148	11358	99	99	99	98	93	87	76	64	50	40	28	13
1	6/15/78	2	11	0.0181	8559	100	100	100	99	92	78	60	51	38	31	22	8
1	6/15/78	2	26	0.0052	4711	99	99	98	98	94	92	85	76	64	52	35	14
1	6/15/78	2	45	0.0029	3487	100	100	100	99	94	89	80	70	56	46	32	12
1	6/20/78	0	58	0.0181	17396	99	99	99	97	86	73	59	49	37	29	20	9
1	6/20/78	1	1	0.0202	15644	100	99	99	98	89	80	68	57	42	34	23	10
1	6/20/78	1	5	0.0245	12583	100	100	99	99	93	87	76	66	52	41	29	14
1	6/20/78	1	9	0.0536	15910	99	99	98	95	85	77	65	55	40	31	21	9
1	6/20/78	1	13	0.0589	13257	100	99	99	98	91	84	73	61	46	37	25	10
1	6/20/78	1	15	0.0561	11093	99	99	99	98	92	84	72	61	46	37	25	10
1	6/20/78	1	17	0.0519	10188	99	98	98	97	92	87	76	66	50	40	26	11
1	6/20/78	1	22	0.0419	8989	99	99	99	97	93	88	79	70	56	46	32	15
1	6/20/78	1	32	0.0375	6796	99	99	99	98	96	93	85	76	63	53	38	19
1	6/20/78	1	51	0.0127	4127	99	99	99	98	93	89	82	73	61	51	37	16
1	6/20/78	2	12	0.0140	6670	100	100	100	99	96	92	84	74	61	52	39	21
1	6/20/78	2	32	0.0152	4583	99	99	98	98	96	92	85	78	65	54	39	20
1	6/20/78	2	57	0.0079	3250	100	100	100	100	98	96	91	85	75	66	51	18

TABLE E1- 4. PARTICLE SIZE DATA FOR SEDIMENT IN TRANSPORT FOR 1976 SITE 2

						EQUIVALENT SPHERICAL DIAMETER (MICRONS)											
						50	40	32	24	16	12	8	6	4	3	2	1
SITE	DATE	HOUR	MIN	FLOW RATE CMS	CONC PPM	PERCENT FINER THAN											
2	5/29/76	7	27	0.0127	11063	100	100	100	96	82	71	57	45	31	23	14	6
2	5/29/76	7	29	0.0648	13031	100	100	99	94	77	62	46	34	22	15	9	3
2	5/29/76	7	30	0.1391	20111	100	99	98	90	69	55	38	27	15	9	3	0
2	5/29/76	7	30	0.1391	22742	100	100	100	100	100	97	90	79	64	55	39	18
2	5/29/76	7	31	0.7416	35493	97	96	95	87	67	52	37	29	20	14	9	3
2	6/13/76	19	34	0.0013	8471	100	100	100	100	97	92	82	72	57	48	35	17
2	6/13/76	19	40	0.0024	9916	100	100	99	99	96	90	77	67	53	43	32	16
2	6/13/76	19	45	0.0063	8743	100	100	100	100	99	96	89	78	63	52	37	19
2	6/13/76	19	55	0.0069	4913	100	100	100	100	100	98	93	84	71	60	46	20
2	6/13/76	20	5	0.0052	4691	100	100	100	100	100	97	90	81	67	57	42	16
2	6/13/76	20	15	0.0029	2731	100	100	100	100	100	100	95	88	76	66	50	22
2	6/13/76	20	25	0.0047	4399	100	100	100	100	97	90	77	67	56	47	35	16
2	6/13/76	20	34	0.0119	5822	100	99	99	98	94	89	80	71	57	47	35	17
2	6/13/76	20	43	0.0160	5771	100	100	100	99	90	82	74	66	54	44	32	11
2	6/13/76	20	55	0.0189	4091	100	100	100	100	97	93	86	76	61	50	35	16
2	6/13/76	21	5	0.0168	3575	100	100	100	100	96	93	84	75	60	51	38	15
2	6/13/76	21	15	0.0136	2491	100	100	100	100	100	98	92	84	70	59	44	22
2	6/13/76	21	20	0.0119	2387	100	100	100	100	96	90	81	71	57	47	33	15
2	6/13/76	21	35	0.0057	1782	100	100	100	100	100	98	93	86	75	64	49	23
2	6/13/76	21	45	0.0024	1432	100	100	100	100	100	97	90	79	64	55	39	18

TABLE E1- 5. PARTICLE SIZE DATA FOR SEDIMENT IN TRANSPORT FOR 1977 SITE 2

						EQUIVALENT SPHERICAL DIAMETER (MICRONS)											
						50	40	32	24	16	12	8	6	4	3	2	1
SITE	DATE	HOUR	MIN	FLOW RATE CMS	CONC PPM	PERCENT FINER THAN											
2	8/15/77	22	21	0.0073	32005	100	99	98	92	78	70	58	51	41	35	27	16
2	8/15/77	22	23	0.0348	33636	100	100	99	94	80	70	59	50	41	35	27	15
2	8/15/77	22	24	0.0469	44299	100	99	97	90	74	64	53	45	37	31	24	14
2	8/15/77	22	26	0.0569	36643	100	100	99	95	82	72	61	52	42	36	27	15
2	8/15/77	22	28	0.0536	25867	100	100	99	96	86	76	65	55	45	37	28	15
2	8/15/77	22	30	0.0452	21282	100	100	99	96	88	79	68	58	47	38	28	15
2	8/15/77	22	32	0.0402	14156	100	100	100	99	93	87	77	67	55	46	34	18
2	8/15/77	22	34	0.0380	9960	100	100	99	98	95	89	80	71	59	49	35	18
2	8/15/77	22	36	0.0348	8705	100	100	99	98	97	92	84	75	62	51	37	19
2	8/15/77	22	38	0.0256	7848	100	100	99	98	94	91	82	72	60	50	35	16
2	8/20/77	6	10	0.0020	1915	100	100	100	96	88	84	80	74	58	46	30	10

TABLE E1- 6. PARTICLE SIZE DATA FOR SEDIMENT IN TRANSPORT FOR 1978 SITE 2

						EQUIVALENT SPHERICAL DIAMETER (MICRONS)											
						50	40	32	24	16	12	8	6	4	3	2	1
SITE	DATE	HOUR	MIN	FLOW RATE CMS	CONC PPM	PERCENT FINER THAN											
2	4/17/78	14	20	0.0012	2869	99	99	99	98	97	93	83	75	61	51	39	18
2	4/17/78	14	45	0.0060	2026	98	98	98	97	90	85	76	68	53	42	25	5
2	4/17/78	23	4	0.0160	4639	100	99	99	99	96	90	81	71	57	46	33	14
2	4/17/78	23	15	0.0469	3502	100	99	98	95	84	78	74	67	55	46	43	17
2	4/17/78	23	17	0.0494	3197	100	100	100	99	95	92	82	53	35	29	21	11
2	4/17/78	23	20	0.0513	2851	100	99	99	98	93	81	69	62	50	41	30	13
2	4/17/78	23	25	0.0552	2825	100	99	99	97	89	84	76	69	56	46	31	13
2	4/17/78	23	32	0.0576	2498	100	100	100	97	89	82	75	68	56	46	34	17
2	4/17/78	23	34	0.0563	2508	100	100	100	100	100	100	92	79	65	53	37	17
2	4/17/78	23	36	0.0552	2255	100	100	99	96	83	77	70	64	52	42	29	10
2	4/17/78	23	41	0.0528	2105	100	99	99	97	85	72	63	57	49	42	31	16
2	4/17/78	23	46	0.0494	1968	100	100	100	98	93	89	83	76	64	52	35	13
2	4/17/78	23	51	0.0461	1749	100	99	99	98	86	68	57	51	42	35	25	10
2	4/17/78	23	56	0.0441	1624	100	100	100	99	88	70	46	39	27	21	14	4
2	4/18/78	0	1	0.0426	1545	100	100	100	100	91	80	69	62	49	41	28	8
2	4/18/78	0	6	0.0402	1554	100	100	98	95	91	88	82	74	62	51	38	13
2	4/18/78	0	13	0.0368	1570	99	99	99	98	91	86	80	72	62	52	38	15
2	4/18/78	0	18	0.0334	1465	100	100	100	100	100	97	92	86	74	61	35	10
2	4/18/78	0	23	0.0312	1494	99	99	99	98	96	89	85	79	69	60	43	18
2	4/18/78	0	28	0.0284	1436	99	99	99	97	86	74	64	55	45	37	26	9
2	4/18/78	0	33	0.0266	1424	99	99	99	96	87	76	67	59	49	41	29	9
2	4/18/78	0	43	0.0231	1299	100	100	100	98	90	82	75	65	53	43	31	13
2	4/18/78	0	53	0.0171	1237	100	98	98	98	96	94	90	86	77	67	52	23
2	4/18/78	1	3	0.0107	1105	100	98	98	98	95	94	89	84	74	67	51	22
2	4/18/78	1	18	0.0066	1040	100	100	100	100	98	96	94	90	81	72	57	23
2	4/18/78	1	33	0.0030	897	100	100	97	95	94	92	87	82	72	63	48	20
2	5/27/78	16	36	0.1000	18200	100	100	98	92	74	60	44	32	21	14	7	0
2	5/27/78	16	38	0.3222	26020	99	97	94	80	54	40	28	22	13	9	5	0
2	5/27/78	16	40	0.3789	25053	99	98	97	89	63	50	37	29	21	15	10	3
2	5/27/78	16	42	0.5001	21354	99	99	97	91	66	50	37	29	19	14	8	2
2	5/27/78	16	44	0.5649	20779	99	99	98	93	75	61	47	37	26	20	12	4
2	5/27/78	16	46	0.6074	18967	100	99	97	88	68	57	45	36	25	19	12	4
2	5/27/78	16	48	0.5862	20572	99	99	99	93	75	63	50	40	28	22	14	5
2	5/27/78	16	50	0.5188	19814	99	99	98	94	79	65	50	40	29	21	13	5
2	5/27/78	16	52	0.4457	16895	99	98	97	95	81	70	56	45	33	25	16	7
2	5/27/78	16	54	0.3375	14047	99	98	97	94	80	69	57	46	32	25	16	5
2	5/27/78	16	58	0.2025	11817	100	100	99	96	83	74	60	49	36	28	19	7
2	5/27/78	17	0	0.1483	11376	99	99	99	97	92	85	75	64	50	40	28	13
2	5/27/78	17	4	0.0728	8551	100	100	99	98	93	88	79	68	54	43	30	14
2	5/27/78	17	8	0.0402	6655	100	100	100	99	95	90	81	71	58	48	35	17
2	5/31/78	22	20	0.0119	29116	100	100	100	97	78	60	46	37	26	20	11	2
2	5/31/78	22	24	0.0486	22884	99	99	98	97	88	76	62	50	35	27	18	8
2	5/31/78	22	26	0.0629	26292	98	98	97	93	77	65	52	42	30	22	14	5
2	5/31/78	22	28	0.0589	21707	99	99	98	96	86	75	61	51	38	29	20	9
2	5/31/78	22	30	0.0469	18202	100	100	99	98	93	85	71	58	43	33	22	10
2	5/31/78	22	32	0.0334	15013	99	99	99	98	95	87	76	66	48	38	25	10
2	5/31/78	22	34	0.0234	11734	100	100	99	99	97	92	83	72	55	44	30	15
2	5/31/78	22	44	0.0047	5960	100	99	99	99	97	95	90	83	67	55	40	20
2	5/31/78	22	54	0.0015	3533	100	99	99	99	98	97	94	88	78	65	50	25
2	6/15/78	1	18	0.0015	13308	100	100	99	99	93	85	75	63	49	40	38	13
2	6/15/78	1	26	0.0133	10245	100	99	99	98	86	70	57	49	37	30	20	8

TABLE E1- e. CONCLUDED

SITE	DATE	HOUR	MIN	FLOW RATE CMS	CONC PPM	EQUIVALENT SPHERICAL DIAMETER (MICRONS) 50	40	32	24	16	12	8	6	4	3	2	1
						PERCENT FINER THAN											
2	6/15/78	1	31	0.0127	10034	95	99	99	99	94	89	79	67	50	38	25	8
2	6/15/78	1	38	0.0082	5930	100	100	100	99	96	91	80	69	53	43	28	12
2	6/15/78	1	47	0.0213	4571	99	99	99	98	92	85	74	65	48	38	25	11
2	6/15/78	1	52	0.0552	10899	99	98	97	94	79	68	56	46	33	26	16	6
2	6/15/78	1	53	0.0668	10474	99	99	98	95	84	74	62	50	36	28	18	7
2	6/15/78	1	54	0.0728	10949	99	99	98	94	75	63	49	39	28	20	12	3
2	6/15/78	1	56	0.0833	11622	100	99	98	94	78	66	52	40	27	20	9	1
2	6/15/78	2	0	0.0883	9154	99	98	98	95	84	72	58	45	30	21	12	0
2	6/15/78	2	4	0.0768	6554	99	99	99	91	82	72	61	51	38	28	17	5
2	6/15/78	2	8	0.0589	4719	100	100	99	97	89	80	67	57	42	32	20	6
2	6/15/78	2	12	0.0436	3456	100	100	100	100	87	78	63	52	33	24	9	0
2	6/20/78	0	57	0.0138	10060	100	100	99	96	73	55	43	35	25	18	12	3
2	6/20/78	1	5	0.0428	12179	100	100	100	97	83	71	56	46	32	24	13	3
2	6/20/78	1	7	0.0428	10630	100	100	99	97	87	78	63	50	34	24	13	3
2	6/20/78	1	12	0.0321	7553	100	99	99	99	92	84	71	58	42	32	20	6
2	6/20/78	1	20	0.0160	3695	100	100	100	99	94	86	74	63	45	33	18	3

TABLE E1- 7. PARTICLE SIZE DATA FOR SEDIMENT IN TRANSPORT FOR 1976 SITE 4

SITE	DATE	HOUR	MIN	FLOW RATE CMS	CONC PPM	EQUIVALENT SPHERICAL DIAMETER (MICRONS) 50	40	32	24	16	12	8	6	4	3	2	1
						PERCENT FINER THAN											
4	2/27/76	13	40	2.7100	2338	98	94	83	57	32	26	21	16	11	9	6	2
4	3/ 9/76	12	27	0.1597	338	100	100	98	96	76	62	51	42	31	24	16	6
4	3/ 9/76	14	47	0.5641	734	99	98	95	86	64	53	43	36	25	19	11	3
4	3/ 9/76	18	5	1.3520	5187	99	97	91	70	54	44	36	29	22	17	12	5
4	3/ 9/76	20	15	1.4640	4109	98	96	90	75	56	47	40	33	25	20	14	5
4	3/ 9/76	22	10	1.3150	3295	100	100	94	84	64	52	43	34	25	20	12	2
4	3/12/76	4	3	4.7120	6737	98	95	89	73	46	39	33	28	20	15	10	3
4	3/12/76	7	20	5.4100	5706	99	98	95	86	55	41	34	29	22	17	12	4
4	3/12/76	10	9	5.2100	3250	98	96	91	84	69	62	55	48	40	35	26	14
4	4/17/76	17	0	2.4130	1643	100	100	99	98	92	82	66	54	41	32	22	9
4	4/18/76	4	30	3.0690	11294	100	99	98	96	86	65	31	26	20	16	11	5
4	4/18/76	7	15	3.5680	5498	99	98	98	94	80	64	47	39	30	25	19	9
4	4/23/76	12	5	2.9560	5820	100	99	95	84	44	27	22	19	14	12	8	3
4	4/23/76	14	15	3.5450	8214	100	99	94	84	58	45	36	30	22	17	11	3
4	4/23/76	17	55	2.2510	3802	100	100	92	77	48	38	29	25	16	12	6	0
4	4/23/76	22	3	2.2300	3051	100	99	92	79	55	42	35	27	20	14	7	0
4	5/29/76	12	30	0.9500	12323	100	100	100	99	94	85	55	36	28	23	17	9
4	5/29/76	15	30	1.0750	10186	100	100	100	100	100	100	100	100	90	46	37	22
4	5/29/76	19	20	0.5049	2558	100	100	100	99	96	89	66	46	36	29	20	9
4	6/13/76	21	25	0.2338	9772	100	99	99	99	96	92	81	66	49	42	34	20
4	6/14/76	0	17	3.4550	17179	100	100	100	99	92	83	64	44	34	30	23	13
4	6/14/76	2	15	3.5910	10463	100	99	98	95	86	78	68	59	48	40	30	15
4	6/14/76	7	30	0.6513	2394	100	100	99	98	80	64	50	42	32	26	16	6

TABLE E1- 8. PARTICLE SIZE DATA FOR SEDIMENT IN TRANSPORT FOR 1977 SITE 4

SITE	DATE	HOUR	MIN	FLOW RATE CMS	CONC PPM	EQUIVALENT SPHERICAL DIAMETER (MICRONS) 50	40	32	24	16	12	8	6	4	3	2	1
						PERCENT FINER THAN											
4	8/15/77	23	7	0.0077	1384	100	98	95	89	76	63	50	35	19	11	2	0
4	8/15/77	23	56	0.1422	1877	100	100	95	95	95	95	91	86	66	54	32	2
4	8/16/77	8	1	0.2605	1328	96	96	96	96	91	91	91	85	80	74	59	33
4	9/17/77	23	3	2.8200	3518	95	91	85	68	43	35	29	20	18	14	9	3
4	9/18/77	0	36	0.6513	2146	100	95	85	57	31	24	19	14	10	6	2	0

TABLE E1- 9. PARTICLE SIZE DATA FOR SEDIMENT IN TRANSPORT FOR 1978 SITE 4

SITE	DATE	HOUR	MIN	FLOW RATE CMS	CONC PPM	EQUIVALENT SPHERICAL DIAMETER (MICRONS) 50	40	32	24	16	12	8	6	4	3	2	1
						PERCENT FINER THAN											
4	4/ 6/78	2	26	1.3875	2705	100	100	100	99	84	60	47	39	32	26	20	7
4	4/ 9/78	22	15	2.5678	4874	100	100	98	94	76	54	37	33	28	21	16	8
4	4/10/78	2	36	2.0615	2337	100	100	99	96	87	76	60	49	35	25	15	4
4	4/17/78	18	4	1.9482	2772	100	99	98	93	75	60	47	39	26	20	14	3
4	4/17/78	20	9	2.7920	4651	100	99	98	94	80	70	59	52	41	33	24	11
4	4/18/78	2	35	7.0226	6585	99	97	92	77	45	38	31	27	21	17	13	7
4	4/18/78	8	27	6.1164	3897	98	94	91	79	64	54	45	40	32	26	19	10
4	4/18/78	12	7	4.7874	1089	100	100	95	91	77	68	59	50	41	36	27	9
4	6/15/78	6	40	1.3026	6888	100	100	100	99	91	75	54	47	36	29	22	12
4	6/15/78	8	41	1.2252	6192	100	100	100	99	95	84	70	61	48	40	29	13
4	6/15/78	10	52	0.7664	4028	98	97	97	97	96	92	81	71	57	48	33	14
4	6/15/78	14	14	0.5682	1959	100	100	97	97	97	94	84	71	55	45	29	10
4	6/15/78	17	48	0.4757	1062	100	93	93	93	87	80	73	60	47	33	20	7
4	6/20/78	4	20	0.0566	1449	100	100	100	92	92	92	77	62	46	46	23	8
4	6/20/78	7	30	2.8317	10830	100	100	99	96	81	72	64	58	49	42	31	16
4	6/20/78	8	59	2.2729	8104	99	99	99	97	89	85	75	67	55	46	33	15
4	6/20/78	10	46	1.4951	4505	100	99	99	97	92	84	75	64	51	43	31	13
4	6/20/78	14	17	1.0194	1299	100	100	100	97	92	83	69	56	39	28	14	0

TABLE E1-10. PARTICLE SIZE DATA FOR SEDIMENT IN TRANSPORT FOR 1977 SITE 5

						EQUIVALENT SPHERICAL DIAMETER (MICRONS)											
						50	40	32	24	16	12	8	6	4	3	2	1
SITE	DATE	HOUR	MIN	FLOW RATE CMS	CONC PPM	PERCENT FINER THAN											
5	4/19/77	22	55	0.0943	5318	100	99	99	99	97	93	82	64	49	42	32	18
5	4/19/77	23	50	0.0606	4739	100	100	100	99	98	97	90	80	65	56	42	22
5	7/28/77	22	17	0.1676	2167	95	86	75	62	45	38	32	26	17	12	4	0
5	8/ 1/77	22	7	0.0827	3816	100	100	98	97	95	95	93	88	78	69	56	32
5	8/ 5/77	14	20	0.1129	3736	91	82	74	65	57	52	46	39	27	21	12	3
5	8/ 5/77	17	14	0.0589	3278	100	100	100	97	95	95	95	93	88	86	75	54
5	8/ 5/77	17	53	0.0354	2359	96	95	92	88	83	80	76	74	70	66	58	41
5	8/ 8/77	6	10	0.0282	2537	100	100	97	97	95	95	94	93	90	87	78	57
5	8/ 8/77	8	18	0.0518	2621	100	100	100	100	99	99	95	92	86	78	64	40
5	8/ 8/77	11	34	0.0149	2521	100	97	97	96	96	96	95	95	93	92	89	84

TABLE E1-11. PARTICLE SIZE DATA FOR SEDIMENT IN TRANSPORT FOR 1978 SITE 5

SITE	DATE	HOUR	MIN	FLOW RATE CMS	CONC PPM	EQUIVALENT SPHERICAL DIAMETER (MICRONS) 50	40	32	24	16	12	8	6	4	3	2	1
						PERCENT FINER THAN											
5	4/ 4/78	19	23	0.4531	1741	98	98	98	95	88	77	60	49	35	26	16	5
5	4/ 4/78	20	36	0.4248	1424	100	98	93	78	59	48	38	31	17	12	5	0
5	4/ 4/78	21	22	0.4248	1620	100	100	97	74	32	24	21	16	10	5	0	0
5	4/ 9/78	19	50	1.0005	1869	99	98	96	92	80	65	43	37	26	19	13	5
5	4/15/78	2	49		1546	100	100	100	97	73	52	40	35	26	21	14	5
5	4/17/78	17	50	2.7845	6893	100	100	99	94	77	68	60	52	42	35	24	8
5	4/17/78	18	50	2.8222	5468	100	100	99	96	84	74	64	55	43	35	24	9
5	4/17/78	19	51	2.3899	4775	100	100	99	97	87	81	72	61	49	40	26	9
5	4/17/78	23	58	2.3937	4703	100	99	98	91	76	64	52	43	33	26	16	5
5	4/18/78	2	16	11.0134	11184	100	99	97	92	79	70	60	51	40	33	22	8
5	4/18/78	4	20	11.2135	4801	99	99	98	95	88	80	67	57	44	37	26	13
5	4/18/78	8	13	4.3306	3103	100	99	98	93	80	67	49	40	30	22	15	5
5	6/15/78	3	42	1.5631	12172	100	99	99	93	69	58	50	42	33	26	18	7
5	6/15/78	4	54	2.5682	10888	100	99	99	96	78	66	55	46	36	28	18	7
5	6/15/78	6	25	1.3215	5056	100	100	100	98	88	81	70	61	48	38	26	9
5	6/15/78	9	18	0.2628	3106	100	100	100	97	90	82	70	57	42	30	17	0
5	6/20/78	3	35	3.5396	15414	100	99	97	90	74	66	58	50	38	30	20	8
5	6/20/78	4	56	5.7464	11595	100	99	99	94	72	63	54	49	40	33	24	11
5	6/20/78	7	56	1.6273	4956	100	100	98	98	90	80	72	64	50	40	28	10
5	6/20/78	9	26	0.2809	3723	100	100	100	91	58	48	39	33	25	20	14	3
5	6/20/78	11	14	0.0853	2322	96	96	96	92	76	64	48	36	24	16	8	0

TABLE E1-12. PARTICLE SIZE DATA FOR SEDIMENT IN TRANSPORT FOR 1977 SITE 6

SITE	DATE	HOUR	MIN	FLOW RATE CMS	CONC PPM	EQUIVALENT SPHERICAL DIAMETER (MICRONS) 50	40	32	24	16	12	8	6	4	3	2	1
						PERCENT FINER THAN											
6	8/ 1/77	20	25	0.0008	6071	99	98	96	92	85	76	60	48	35	26	16	6
6	8/ 1/77	22	11	0.0008	4742	100	99	98	97	97	95	93	88	79	69	55	31
6	8/ 5/77	14	23	0.0003	2522	96	89	82	71	68	52	47	42	34	26	16	5
6	8/ 8/77	6	9	0.0994	2975	100	100	98	98	96	93	86	79	63	53	35	11
6	8/ 8/77	8	14	0.1472	2288	100	100	100	98	97	96	90	84	70	58	41	12
6	8/15/77	22	57	2.5430	8888	100	100	97	93	85	76	66	57	45	36	26	11
6	8/15/77	23	27	1.6540	5126	100	99	98	97	90	84	73	63	49	39	27	12
6	8/15/77	23	48	0.9061	3380	100	98	95	95	91	83	74	63	50	39	27	8
6	8/31/77	23	35	0.8948	4877	98	95	93	89	70	49	38	32	23	17	11	4
6	8/31/77	23	57	3.7320	2372	99	99	97	92	74	60	49	40	29	22	14	5
6	9/ 1/77	0	17	1.6280	1963	99	99	96	87	66	55	43	34	23	15	8	0

TABLE E1-13. PARTICLE SIZE DATA FOR SEDIMENT IN TRANSPORT FOR 1978 SITE 6

SITE	DATE	HOUR	MIN	FLOW RATE CMS	CONC PPM	EQUIVALENT SPHERICAL DIAMETER (MICRONS) 50	40	32	24	16	12	8	6	4	3	2	1
						PERCENT FINER THAN											
6	4/ 5/78	19	40	0.4814	3542	100	100	96	90	43	28	24	21	16	14	9	1
6	4/ 5/78	20	43	0.2560	1583	97	94	92	80	64	55	47	42	30	25	14	0
6	4/ 9/78	22	3	0.2560	1457	96	96	93	69	38	28	24	17	14	7	3	0
6	4/ 9/78	23	5	0.1416	2112	100	100	100	87	66	53	40	33	20	7	0	0
6	4/17/78	15	13	0.4701	6378	100	97	94	82	63	55	48	42	34	24	21	9
6	4/17/78	16	25	0.4814	3836	98	97	93	81	54	45	38	33	26	22	15	6
6	4/17/78	17	10	0.4531	2386	97	95	89	75	55	46	40	35	26	20	14	3
6	4/18/78	0	6	2.7241	11303	99	96	90	69	38	30	24	19	14	11	6	0
6	4/18/78	2	25	0.4814	3229	98	94	86	72	55	45	37	29	19	14	6	0
6	4/22/78	13	43	3.2281	1718	96	87	68	46	30	24	20	17	9	5	2	0
6	6/15/78	2	40	0.3400	8634	99	99	98	96	81	66	55	47	36	30	20	8
6	6/15/78	2	56	0.0317	9077	100	100	100	99	91	80	65	54	39	31	20	7
6	6/15/78	3	35	0.0538	3868	99	99	99	98	94	82	59	47	34	26	20	9
6	6/15/78	4	47	0.1070	1390	100	100	100	96	96	89	74	67	55	44	30	11
6	6/20/78	3	25	0.5380	9243	100	99	98	96	85	75	64	55	44	37	27	10
6	6/20/78	4	50	0.4531	3093	100	100	96	95	78	68	57	48	45	28	18	5
6	9/13/78	23	20		3718	99	96	93	69	44	38	32	28	21	16	10	2
6	9/13/78	23	51		3041	98	98	94	76	55	45	37	31	20	14	6	0
6	9/15/78	0	23		66	100	100	95	79	59	52	41	34	23	16	7	0

TABLE E1-14. PARTICLE SIZE DATA FOR SEDIMENT IN TRANSPORT FOR 1977 SITE 7

						EQUIVALENT SPHERICAL DIAMETER (MICRONS)											
						50	40	32	24	16	12	8	6	4	3	2	1
SITE	DATE	HOUR	MIN	FLOW RATE CMS	CONC PPM	PERCENT FINER THAN											
7	8/15/77	22	30	0.2889	4220	100	100	100	96	95	92	85	77	63	53	33	13

TABLE E1-15. PARTICLE SIZE DATA FOR SEDIMENT IN TRANSPORT FOR 1977 SITE 8

SITE	DATE	HOUR	MIN	FLOW RATE CMS	CONC PPM	EQUIVALENT SPHERICAL DIAMETER (MICRONS) 50	40	32	24	16	12	8	6	4	3	2	1
						PERCENT FINER THAN											
8	4/19/77	17	31	0.0849	36444	100	100	99	98	86	77	64	54	43	36	27	16
8	4/19/77	17	34	0.2379	75334	100	100	100	98	91	84	72	63	51	42	31	17
8	4/19/77	17	41	0.8665	48881	99	99	99	99	95	87	75	65	54	46	37	22
8	4/19/77	18	0	0.2549	29654	100	100	99	99	99	97	93	87	78	67	53	32
8	4/19/77	18	23	0.2209	19603	99	99	99	99	99	99	97	95	89	82	69	45

TABLE E1-16. PARTICLE SIZE DATA FOR SEDIMENT IN TRANSPORT FOR 1978 SITE 8

						EQUIVALENT SPHERICAL DIAMETER (MICRONS)											
						50	40	32	24	16	12	8	6	4	3	2	1
SITE	DATE	HOUR	MIN	FLOW RATE CMS	CONC PPM	PERCENT FINER THAN											
8	4/17/78	16	30	0.0900	2718	99	99	99	98	95	87	78	72	61	54	41	23
8	4/17/78	16	55	0.0706	2467	100	99	98	98	97	93	89	84	73	63	49	26
8	4/17/78	17	15	0.0473	2208	98	98	98	98	97	95	93	89	80	71	54	26
8	4/17/78	17	30	0.0602	2188	100	100	99	99	97	90	82	69	64	57	44	22
8	4/17/78	17	45	0.0490	1942	99	99	99	99	98	98	96	92	85	77	62	35
8	5/27/78	16	45	0.3667	26667	99	99	99	98	94	85	71	60	47	38	26	12
8	5/27/78	17	10	1.1129	20989	100	100	99	99	95	88	76	65	50	42	29	13
8	5/27/78	17	15	0.9792	17844	99	99	99	99	94	89	80	70	56	46	33	11
8	5/27/78	17	20	0.5610	11800	100	100	100	99	99	96	91	82	68	56	42	23
8	5/27/78	17	30	0.2996	11114	100	100	100	99	98	96	90	83	70	59	45	25
8	5/27/78	17	40	0.2158	10586	100	100	99	99	98	97	93	87	76	66	51	31
8	5/27/78	18	5	0.1188	9016	100	100	100	99	99	98	95	90	79	69	52	26
8	6/15/78	2	28		7001	100	100	100	100	100	99	93	87	74	63	45	22
8	6/15/78	2	45	0.0125	5637	100	100	100	100	99	98	96	92	83	73	58	35
8	6/15/78	3	0	0.1212	8008	100	99	99	99	98	97	91	82	68	58	43	21
8	6/15/78	3	15	0.1129	5097	100	99	99	99	99	98	91	79	57	47	35	20
8	6/15/78	3	30	0.0828	7204	100	99	99	99	97	96	96	91	81	70	52	25
8	6/15/78	3	45	0.0636	5533	100	100	100	100	99	99	94	88	75	65	51	30
8	6/15/78	4	0	0.0498	5135	100	100	100	100	99	99	98	95	85	75	57	29
8	6/15/78	4	15	0.0371	3929	100	100	100	100	100	99	99	95	85	76	57	27
8	6/15/78	4	30	0.0241	2852	98	98	98	98	98	97	96	93	87	81	64	32
8	6/20/78	2	26	0.2698	0	100	100	100	100	98	96	91	84	71	61	46	25
8	6/20/78	3	6	0.2996	6656	99	99	99	99	98	95	88	79	66	55	41	21
8	6/20/78	3	16	0.2605	6808	100	100	100	99	98	94	87	78	65	54	39	18
8	6/20/78	3	43	0.1337	5415	99	99	99	98	98	96	95	83	71	61	46	23
8	6/20/78	4	0	0.0845	4387	99	99	99	99	98	98	93	88	77	67	51	26
8	6/20/78	4	15	0.0673	3673	100	98	98	98	97	97	92	84	74	63	45	19
8	6/20/78	4	40	0.0604	2882	100	99	99	98	97	96	94	88	77	65	53	26
8	6/20/78	5	0	0.0468	2321	100	100	100	98	98	97	92	87	78	70	54	27

TABLE E1-17. PARTICLE SIZE DATA FOR SEDIMENT IN TRANSPORT FOR 1977 SITE 11

SITE	DATE	HOUR	MIN	FLOW RATE CMS	CONC PPM	EQUIVALENT SPHERICAL DIAMETER (MICRONS) 50	40	32	24	16	12	8	6	4	3	2	1
						PERCENT FINER THAN											
11	6/17/77	14	28		8514	100	100	99	98	94	90	80	70	54	44	31	16
11	6/17/77	15	21		2679	100	100	99	99	99	98	96	94	89	84	72	45
11	7/28/77	18	10		10939	99	98	93	85	70	61	50	41	30	23	16	6
11	7/28/77	18	15		10284	100	97	96	89	77	67	54	45	32	24	15	5
11	7/28/77	18	25		5475	99	98	97	94	84	74	63	52	39	30	20	9

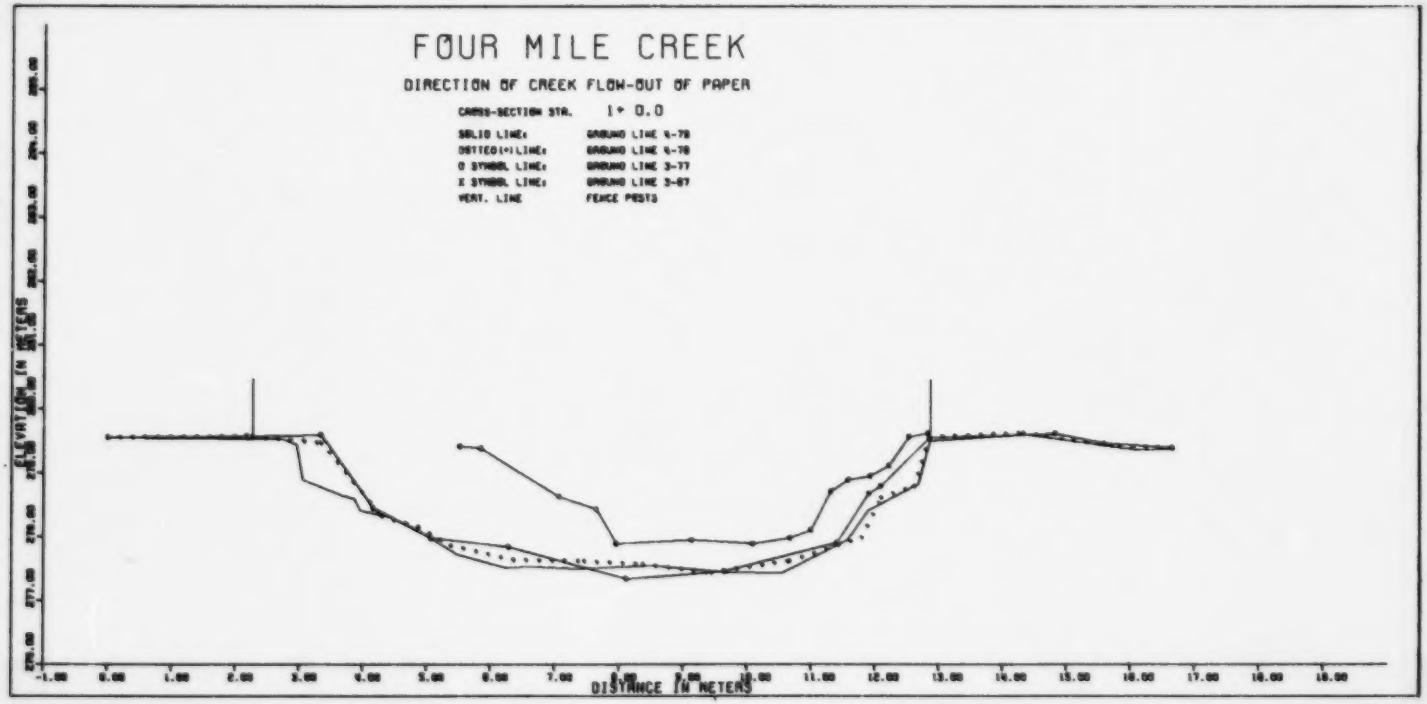


Figure E-1. Four Mile Creek cross section 1+00.

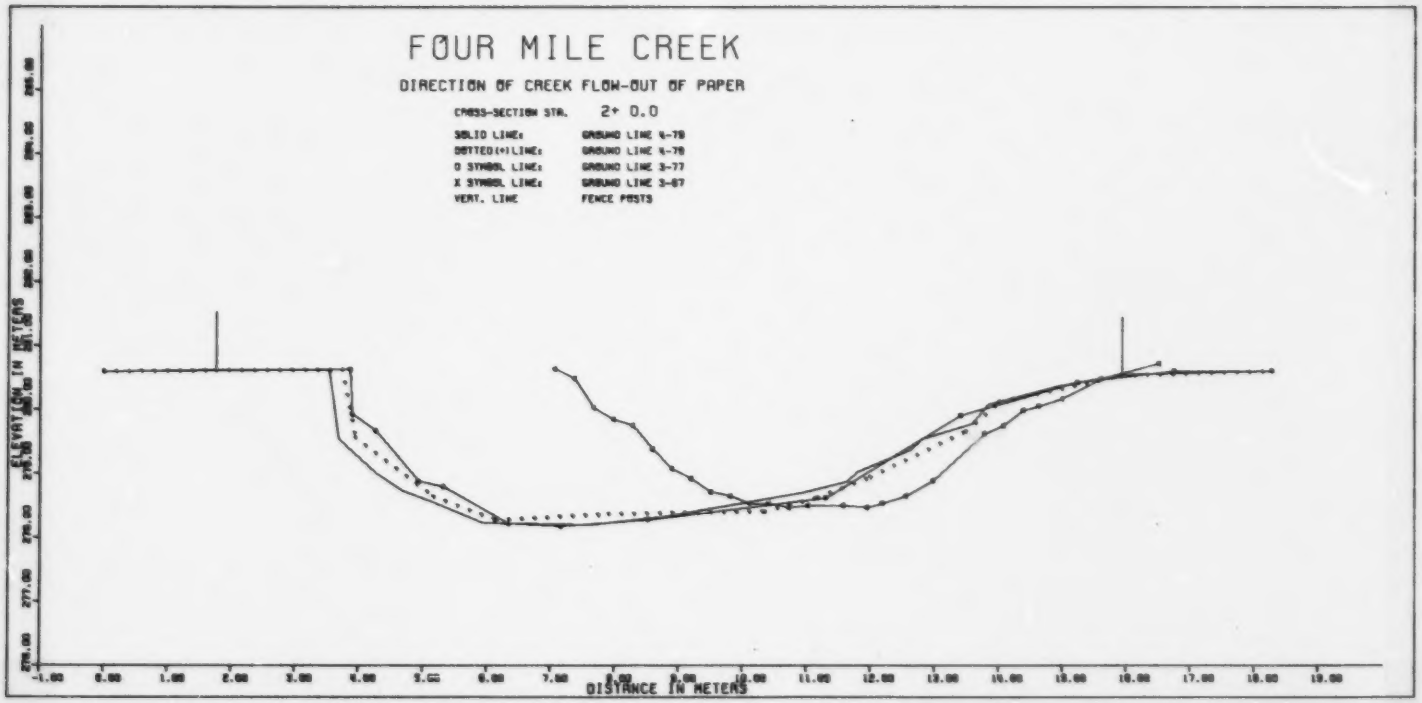


Figure E-2. Four Mile Creek cross section 2+00.

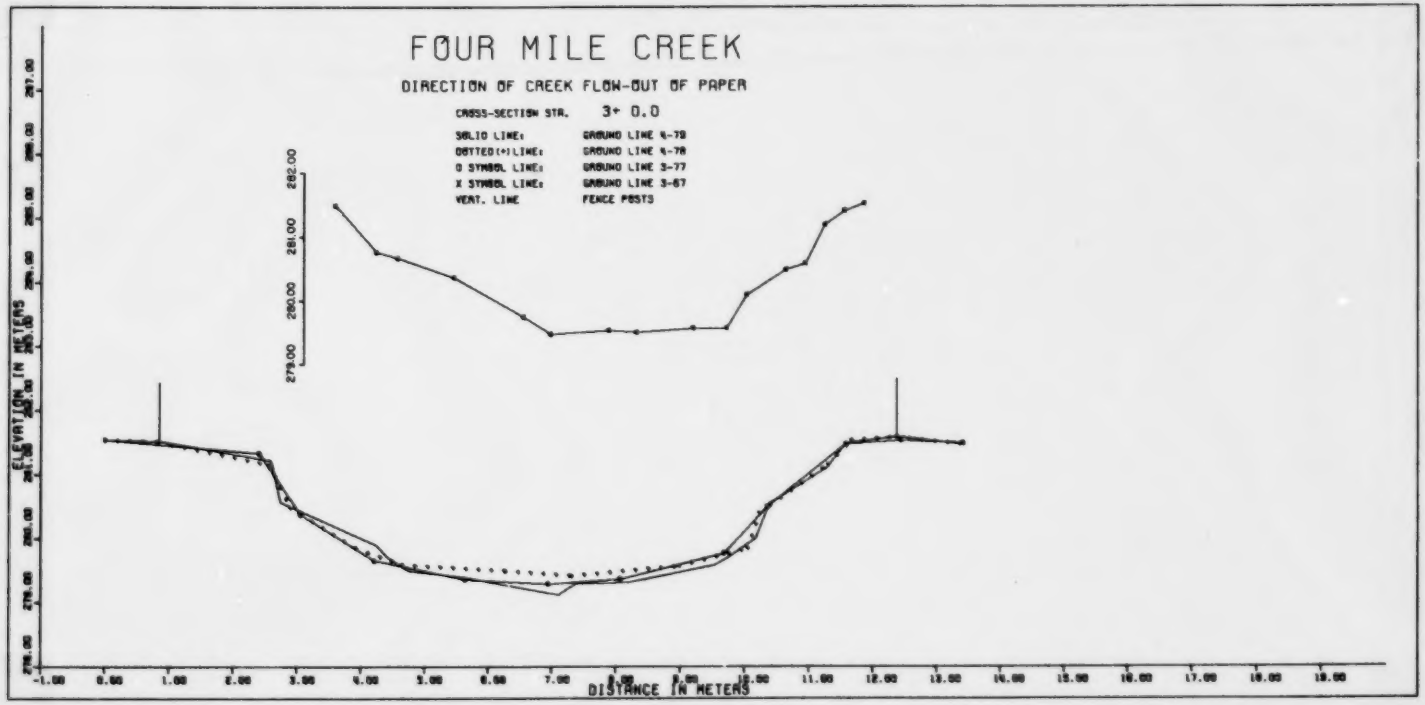


Figure E-3. Four Mile Creek cross section 3+00.

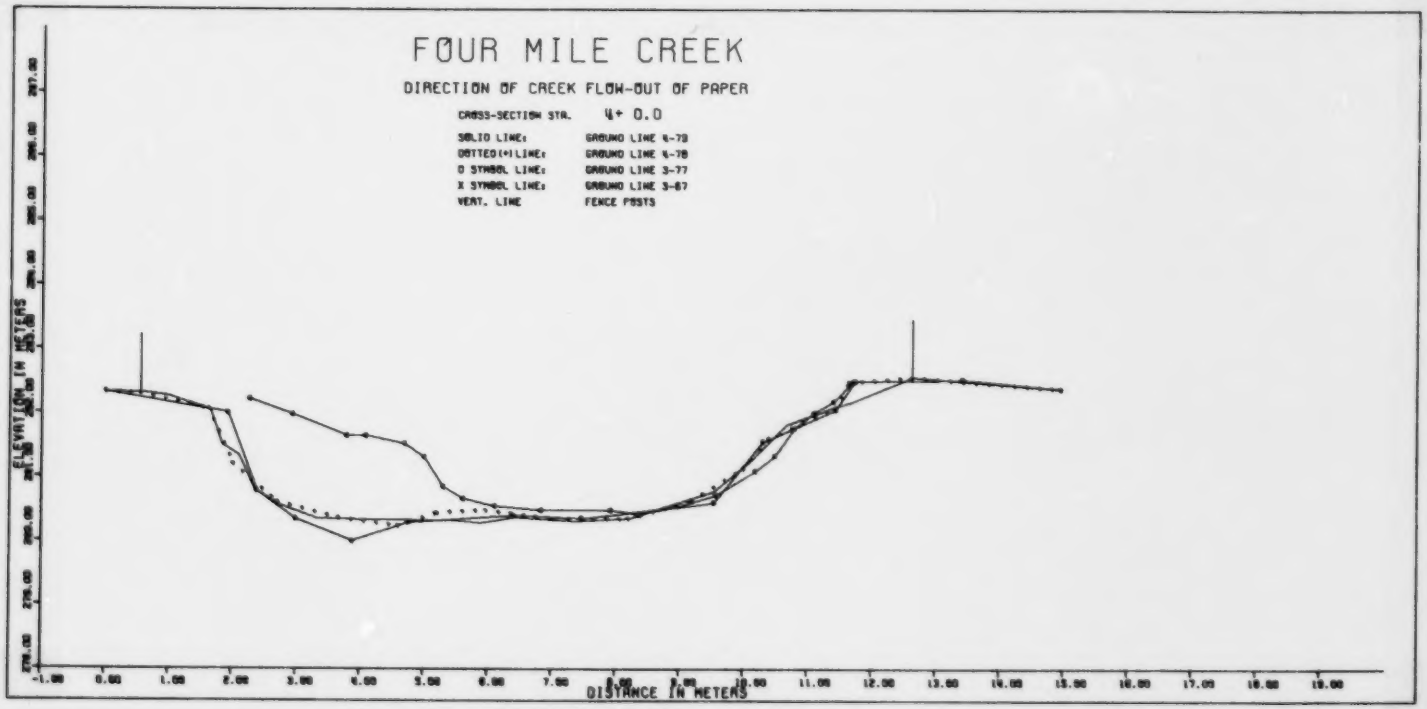


Figure E-4. Four Mile Creek cross section 4+00.

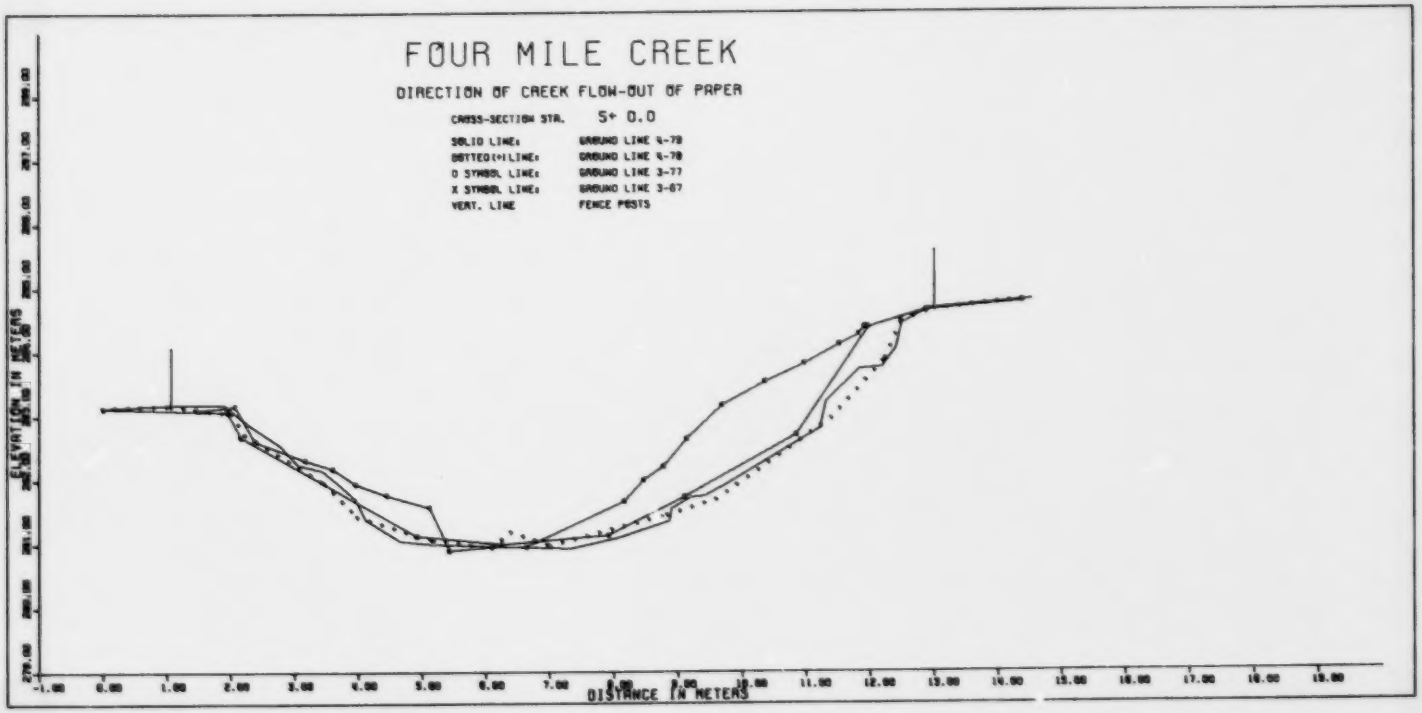


Figure E-5. Four Mile Creek cross section 5+00.

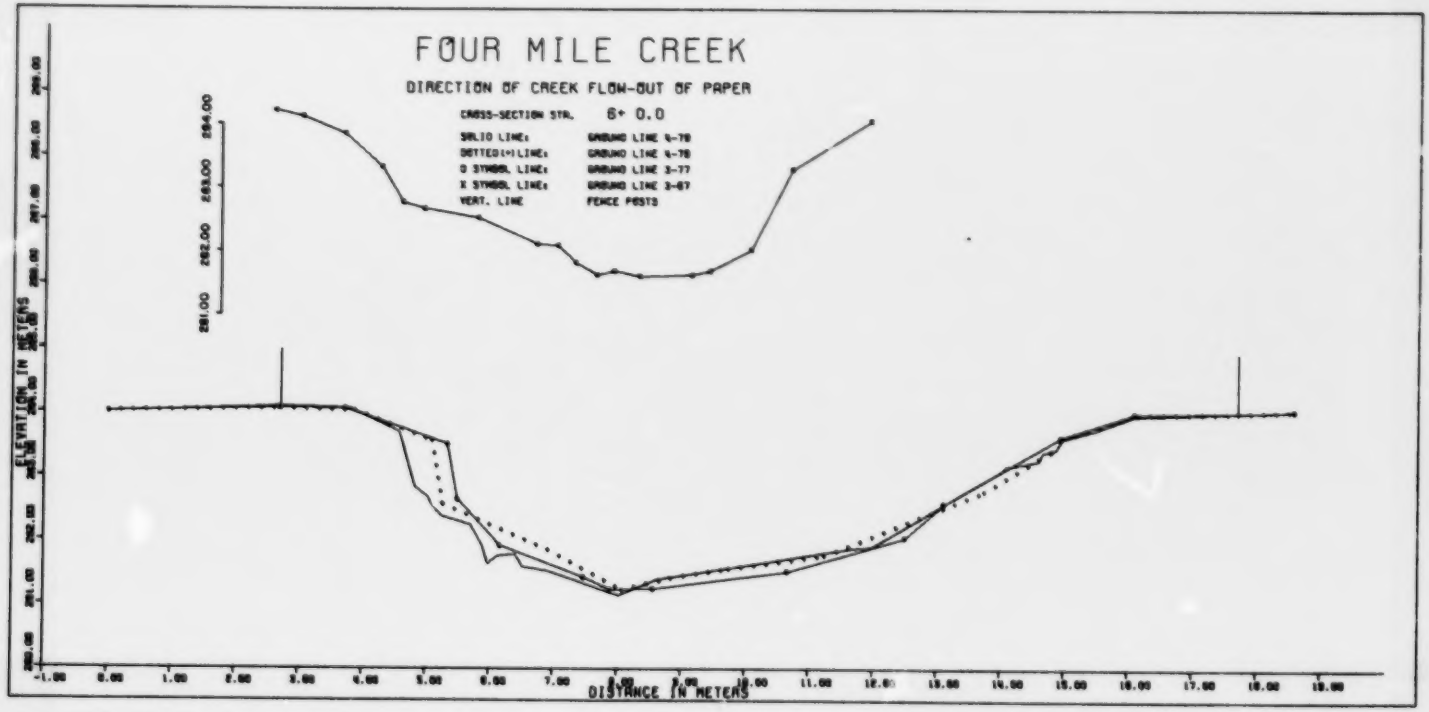


Figure E-6. Four Mile Creek cross section 6+00.

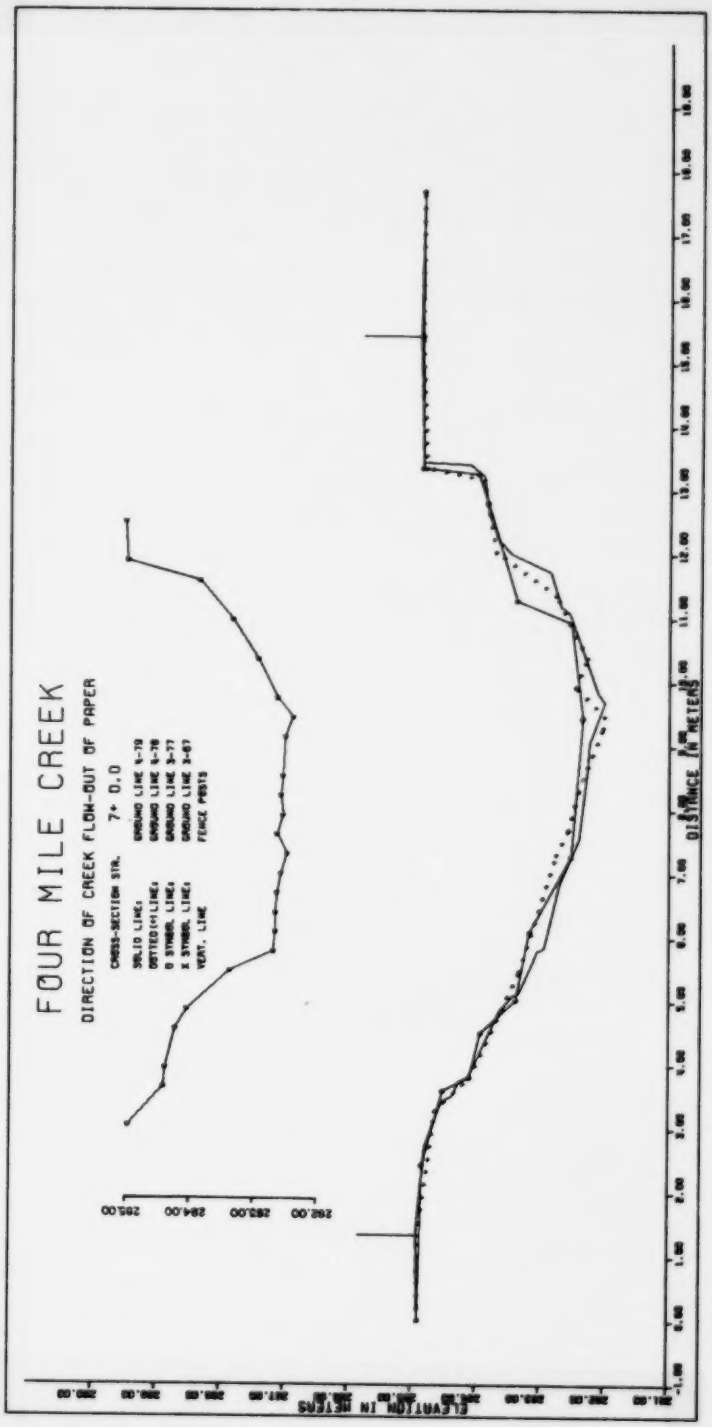


Figure E-7. Four Mile Creek cross section 7+00.

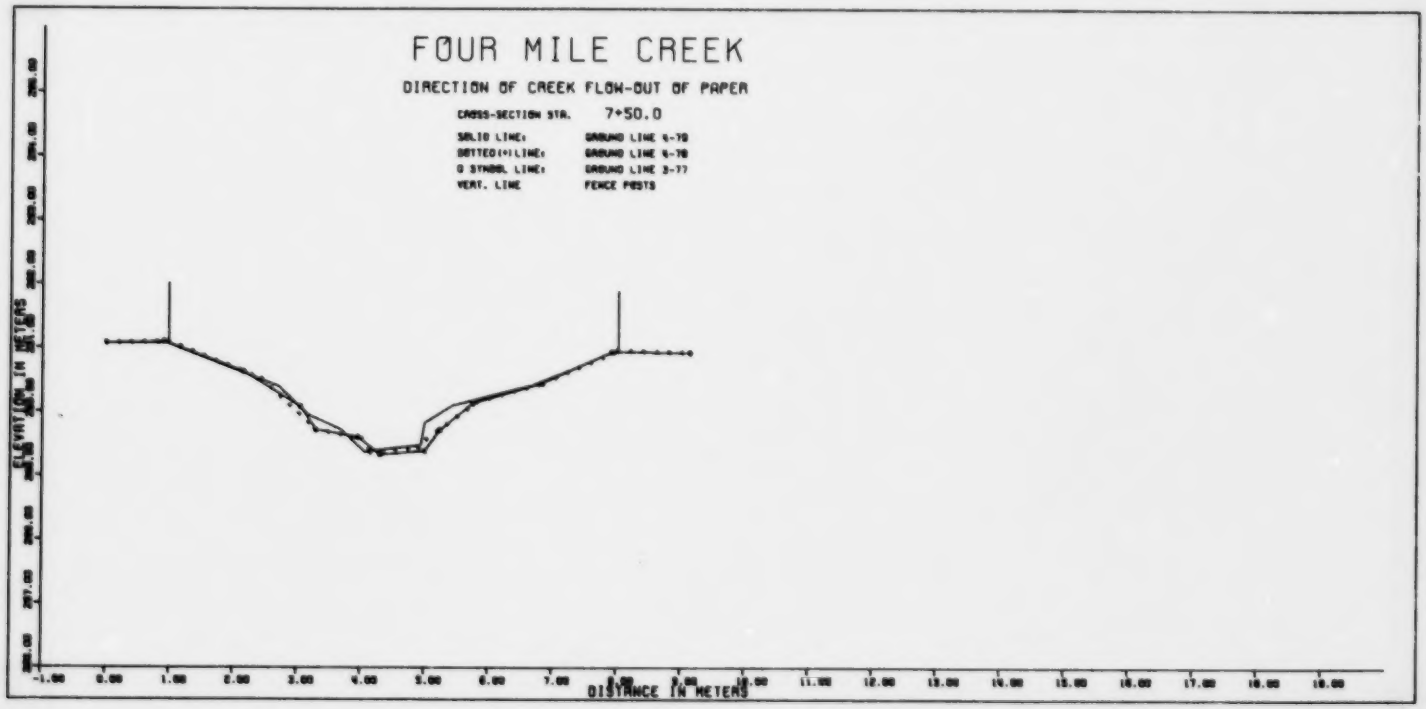


Figure E-8. Four Mile Creek cross section 7+50.

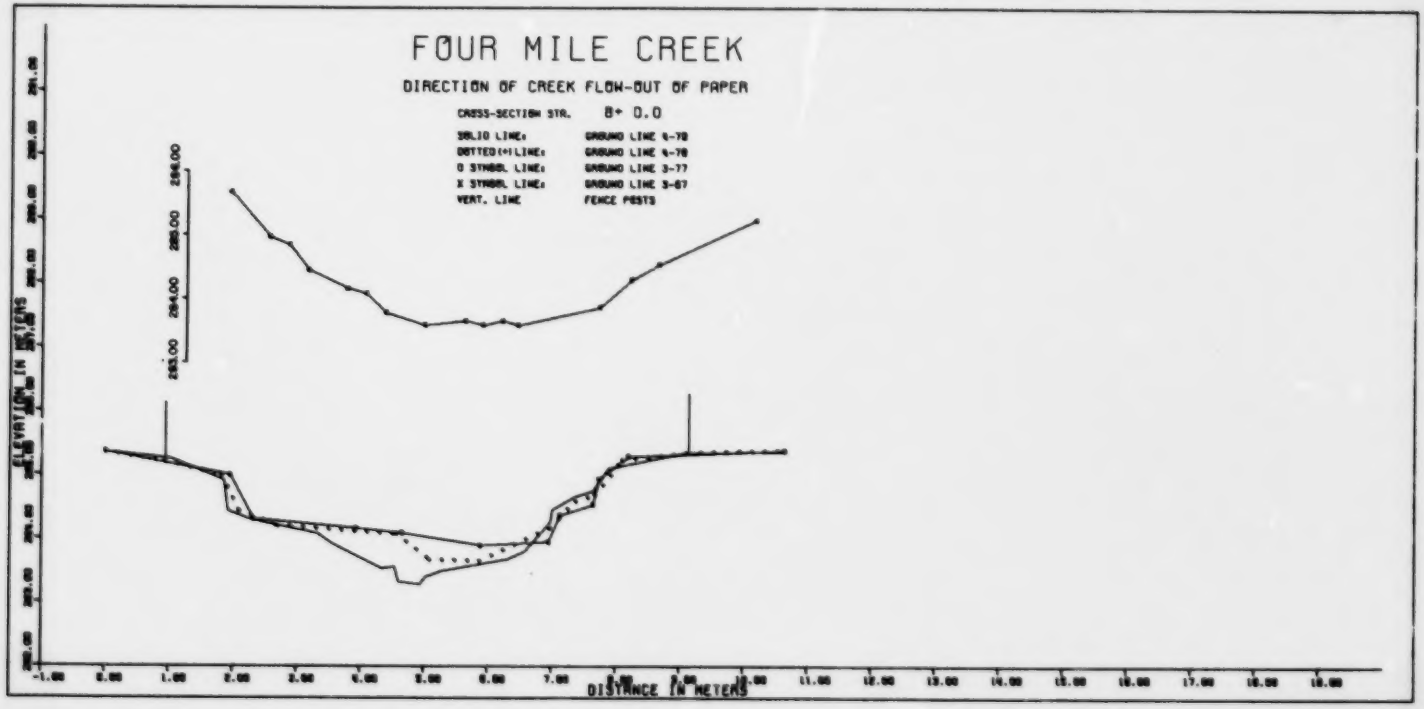


Figure E-9. Four Mile Creek cross section 8+00.

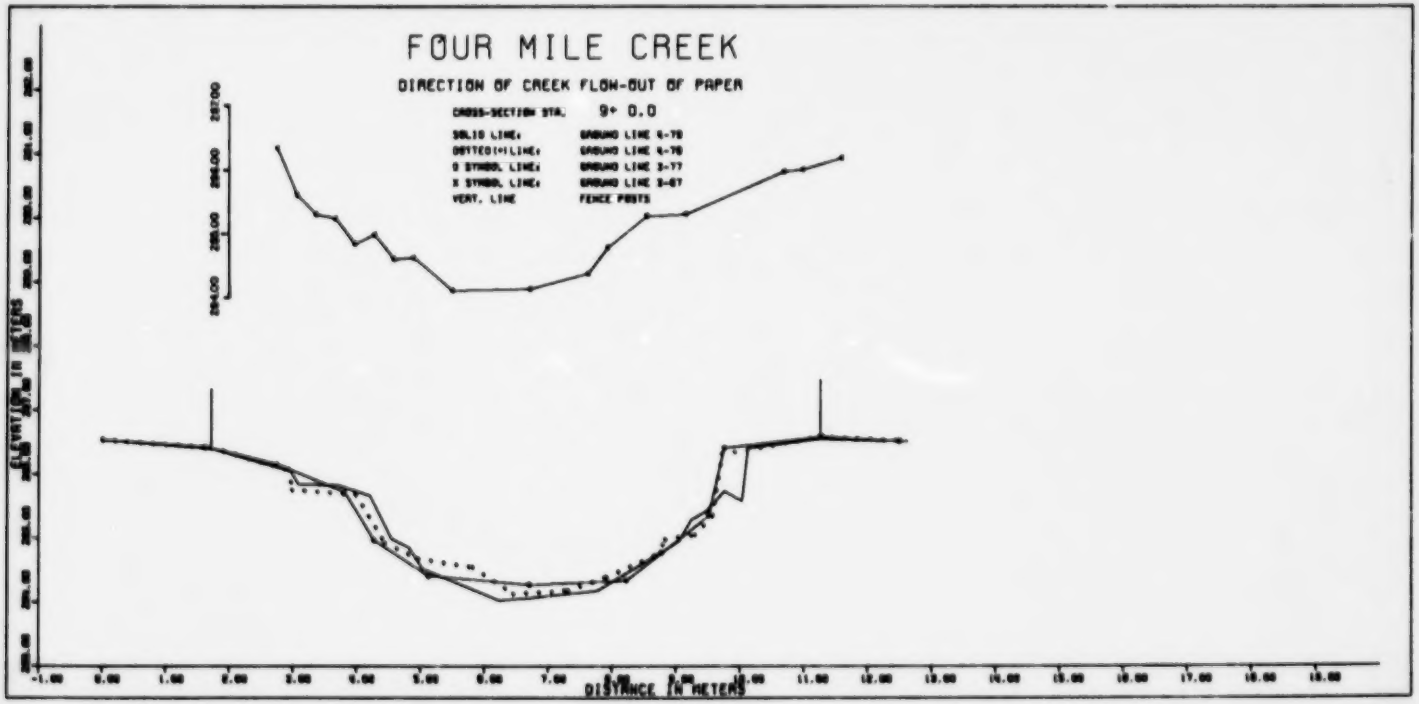


Figure E-10. Four Mile Creek cross section 9+00.

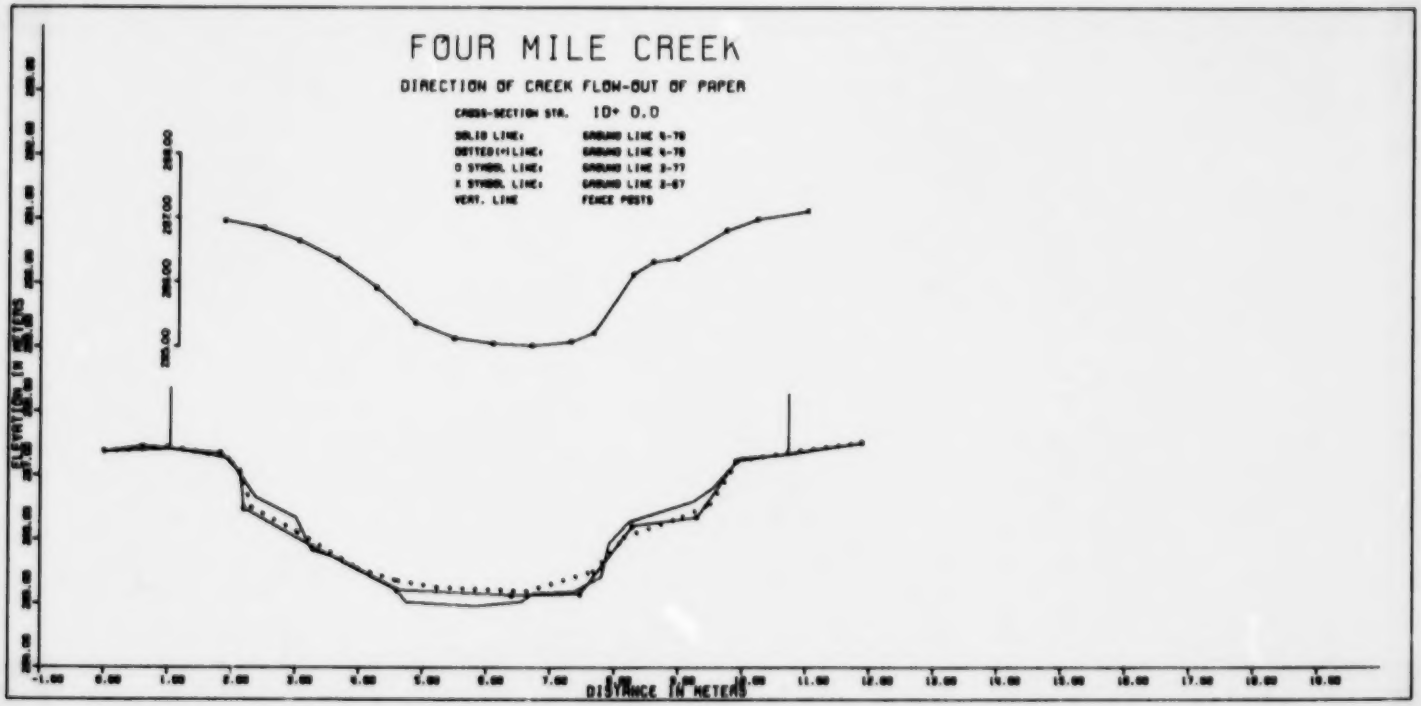


Figure E-11. Four Mile Creek cross section 10+00.

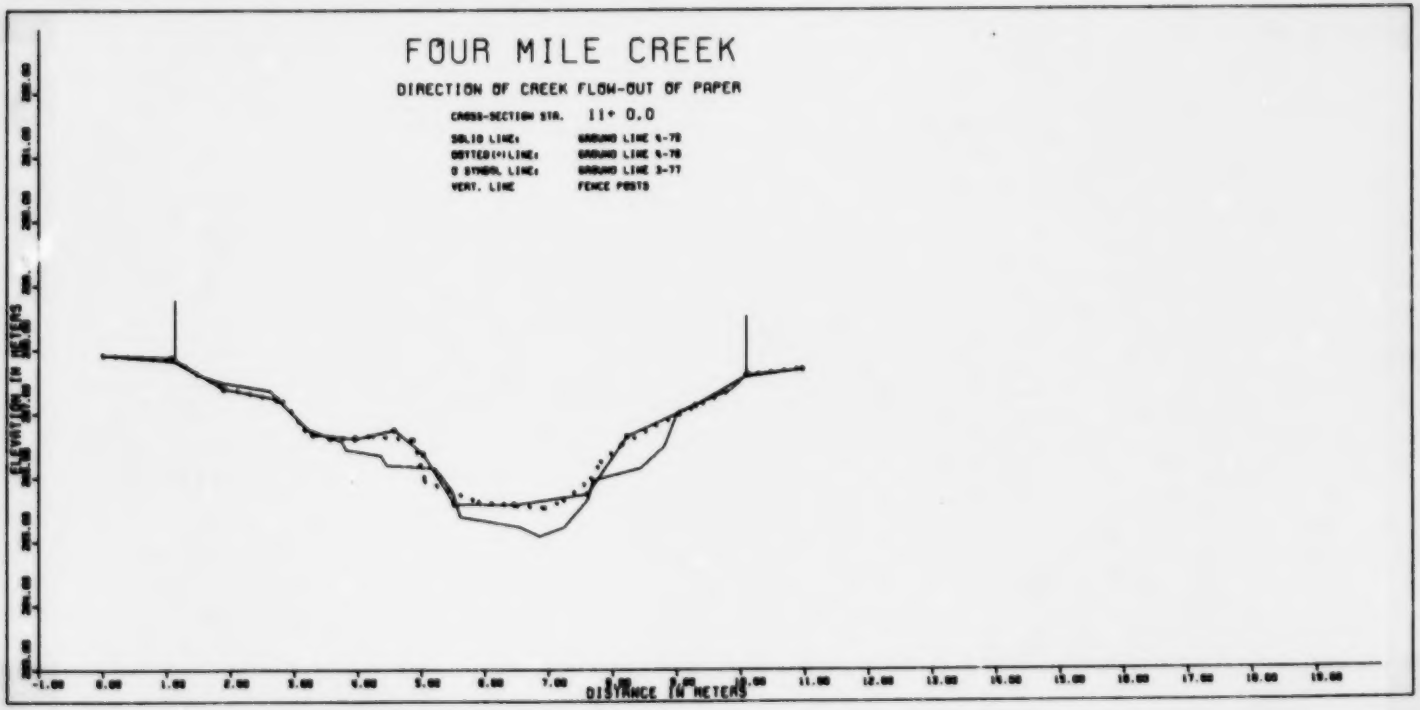


Figure E-12. Four Mile Creek cross section 11+00.

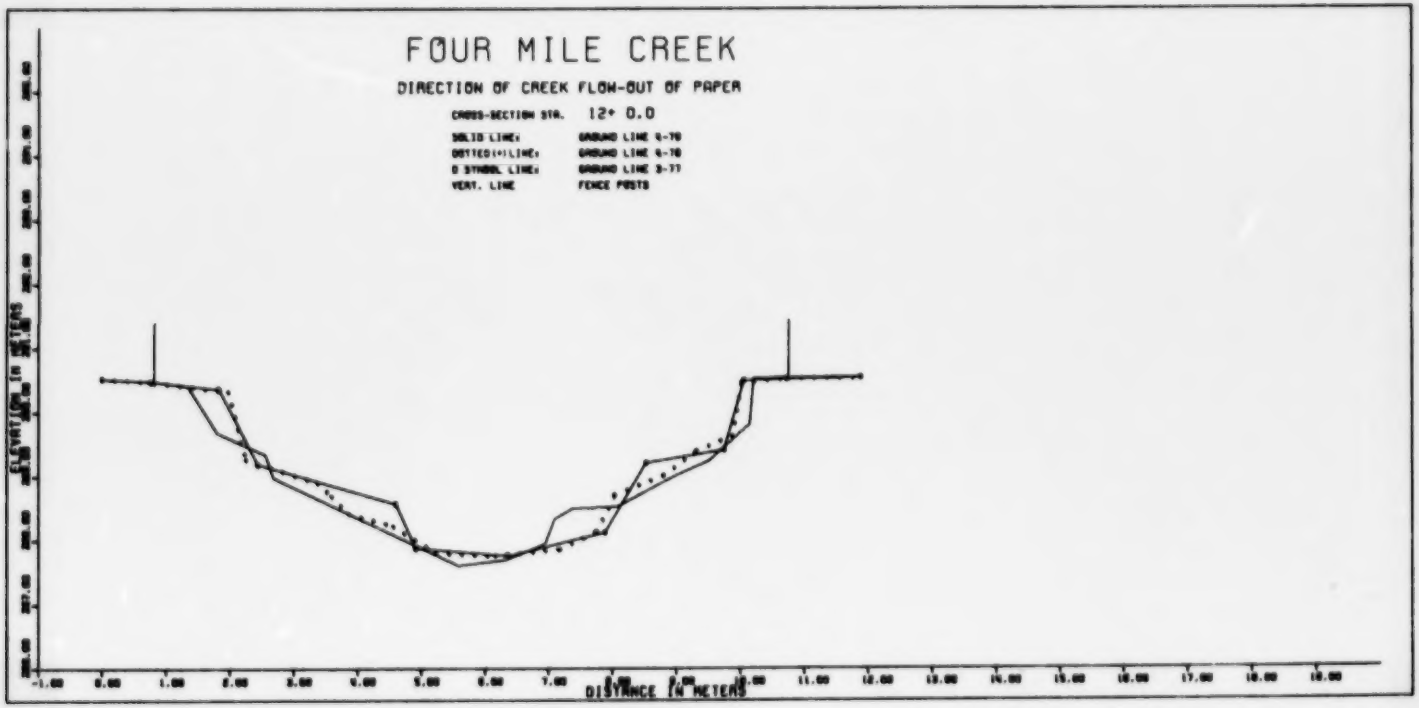


Figure E-13. Four Mile Creek cross section 12+00.

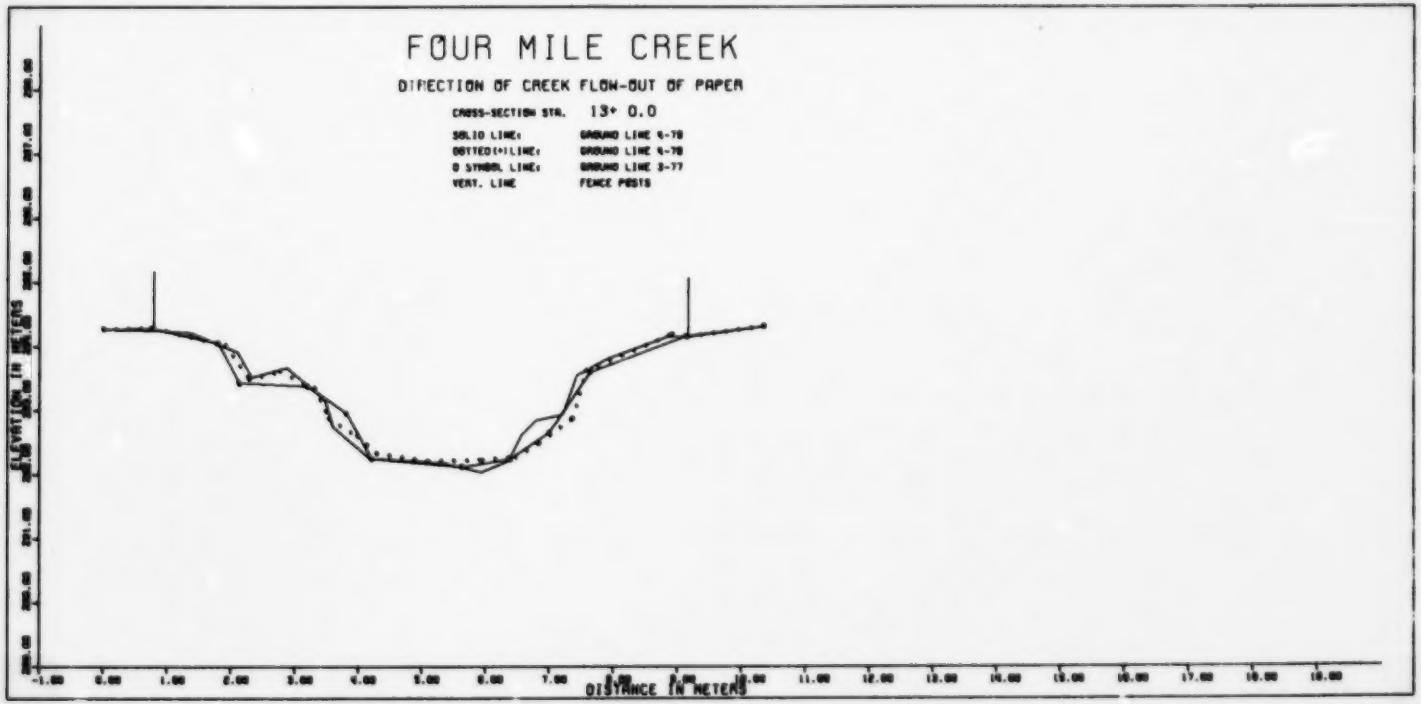


Figure E-14. Four Mile Creek cross section 13+00.

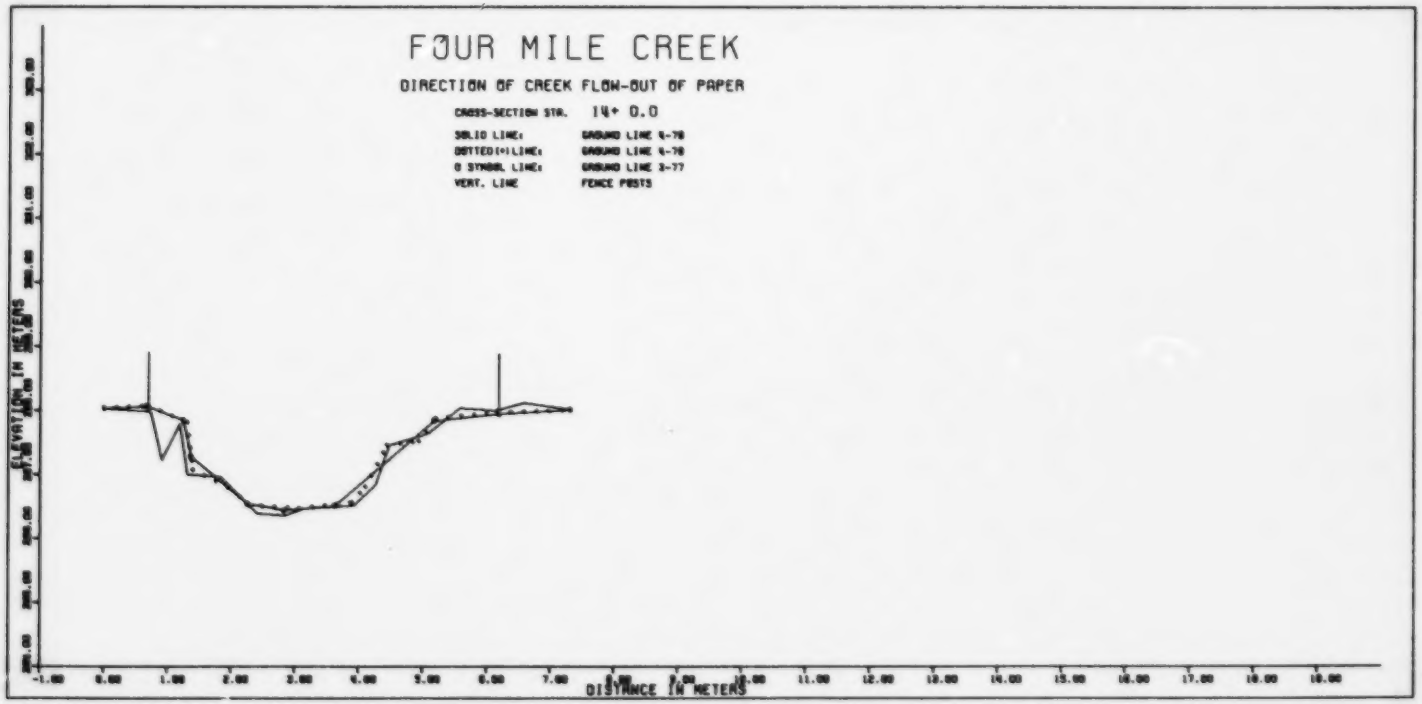


Figure E-15. Four Mile Creek cross section 14+00.

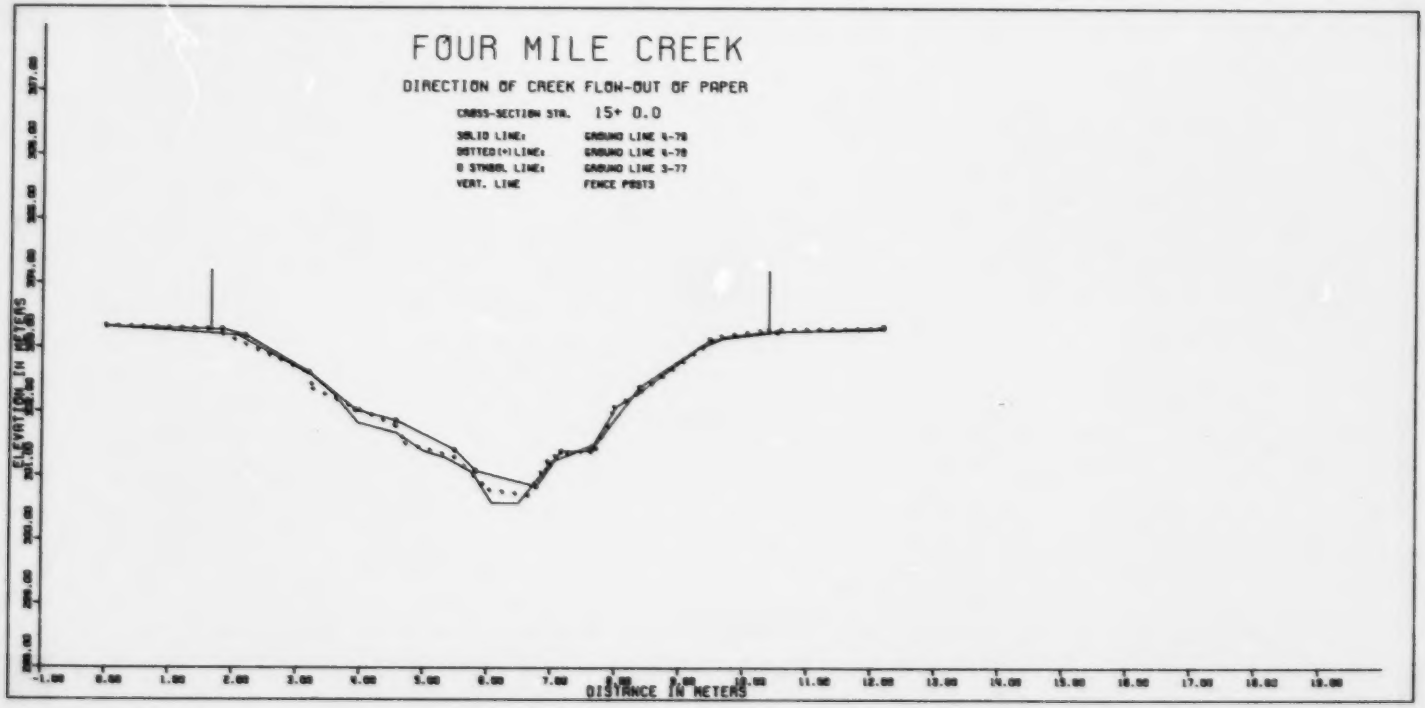


Figure E-16. Four Mile Creek cross section 15+00.

TABLE E2-0. SEDIMENT DISC DEPOSITION

Site	Date	Sediment disc no.	Dry weight/ area kg/m^2	Percent finer than 62 μ
1	8/15/77	1	2.40	94.6
1	8/15/77	2	3.39	91.5
1	8/15/77	4	4.98	95.6
1	8/15/77	7	12.98	92.2
1	8/15/77	8	8.12	94.7
1	8/15/77	9	0.89	97.1
1	8/15/77	10	0.35	97.3
2	8/15/77	1	0.23	88.1
2	8/15/77	2	0.12	87.1
2	8/15/77	3	1.68	96.4
2	8/15/77	4	1.10	98.0
2	8/15/77	5	2.41	96.8
2	8/15/77	6	8.00	95.3
2	8/15/77	7	1.31	98.4
2	8/15/77	8	0.50	98.1
2	8/15/77	10	21.03	84.1
1	5/27/78	1	0.01	71.1
1	5/27/78	2	2.96	98.9
1	5/27/78	3	0.11	98.0
1	5/27/78	4	4.18	97.8
1	5/27/78	5	4.72	98.6
1	5/27/78	6	2.12	95.4
1	5/27/78	7	26.46	94.6
1	5/27/78	8	10.30	78.1
1	5/27/78	9	1.01	100.0
1	5/27/78	10	0.63	81.9
2	5/27/78	1	12.11	96.4
2	5/27/78	2	12.18	86.2
2	5/27/78	3	9.18	93.9
2	5/27/78	4	6.95	92.3
2	5/27/78	5	10.66	96.3
2	5/27/78	6	10.62	99.9
2	5/27/78	7	4.61	94.3
2	5/27/78	8	2.08	55.0
2	5/27/78	9	3.29	73.2
2	5/27/78	10	9.47	95.4
1	5/31/78	2	0.29	90.9
1	5/31/78	3	0.06	76.5
1	5/31/78	4	3.62	93.8
1	5/31/78	5	0.63	95.0
1	5/31/78	6	0.01	70.0
1	5/31/78	7	11.51	88.2
1	5/31/78	8	4.34	93.1
1	5/31/78	9	0.01	64.7
1	5/31/78	10	0.03	74.1

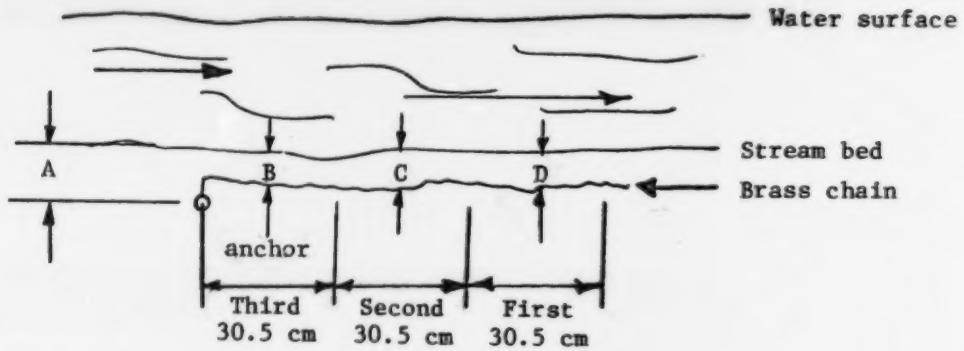
TABLE E2-0 (continued).

Site	Date	Sediment disc no.	Dry weight/ area kg/m^2	Percent finer than 62 μ
2	5/31/78	1	3.53	85.2
2	5/31/78	2	1.51	79.5
2	5/31/78	3	2.12	91.7
2	5/31/78	4	3.97	70.5
2	5/31/78	5	2.37	93.7
2	5/31/78	6	4.77	90.6
2	5/31/78	7	4.25	91.1
2	5/31/78	8	2.21	92.3
2	5/31/78	9	1.65	95.2
2	5/31/78	10	2.19	92.8
1	6/15/78	1	0.03	70.9
1	6/15/78	2	0.96	87.2
1	6/15/78	3	0.22	89.6
1	6/15/78	4	8.72	93.7
1	6/15/78	5	1.27	92.6
1	6/15/78	6	0.08	75.1
1	6/15/78	7	31.35	93.4
1	6/15/78	8	9.18	91.6
1	6/15/78	9	0.21	90.9
1	6/15/78	10	0.15	87.1
2	6/15/78	1	3.02	85.1
2	6/15/78	2	0.67	93.7
2	6/15/78	3	1.59	72.4
2	6/15/78	4	5.57	97.5
2	6/15/78	5	3.47	95.1
2	6/15/78	6	1.14	96.1
2	6/15/78	7	2.80	88.8
2	6/15/78	8	1.15	96.3
2	6/15/78	9	1.81	100.0
2	6/15/78	10	2.53	92.1
1	6/20/78	1	--	--
1	6/20/78	2	0.47	91.4
1	6/20/78	3	0.10	91.7
1	6/20/78	4	0.86	96.3
1	6/20/78	5	1.30	95.7
1	6/20/78	6	0.48	93.9
1	6/20/78	7	4.79	99.3
1	6/20/78	8	5.78	97.1
1	6/20/78	9	0.16	100.0
1	6/20/78	10	0.66	100.0
2	6/20/78	1	1.16	90.2
2	6/20/78	2	0.17	93.0
2	6/20/78	3	0.20	96.8
2	6/20/78	4	2.62	92.5
2	6/20/78	5	1.55	98.6

TABLE E2-0 (continued).

Site	Date	Sediment disc no.	Dry weight/ area kg/m^2	Percent finer than 62 μ
2	6/20/78	6	0.53	98.1
2	6/20/78	7	2.33	62.7
2	6/20/78	8	1.25	100.0
2	6/20/78	9	0.81	100.0
2	6/20/78	10	1.41	96.1

FOUR MILE CREEK DEPTHS OF SCOUR



A = distance from top of anchor to stream bed

B, C, D = average distance from stream bed to brass chain in third, second and first 30.5 cm of chain length, respectively

TABLE E2-1. FOUR MILE CREEK DEPTHS OF SCOUR

Location	Chain no.*	A initial cm	A final cm	B cm	C cm	D cm	July 24, 1978 Comments
Between cross section 3 & 4	1	30.5	30.5	7.6	7.6	7.6	Chain was straight in alignment and covered with very fine silt, not much sand.
Between cross section 3 & 4	2	30.5	15.2	0	2.5	2.5	Section B of chain was curved in alignment with section. C & D straight and covered with fine sand mixture.
Between cross section 3 & 4	3	45.7	43.2	5.1	7.6	10.2	Straight in alignment and covered with fine sand and silt mixture of sediment.

Note: High velocity area of channel was located between chains 2 and 3, and very near chain 2.

*Chain number represents the chain when looking upstream, numbered from left to right.

TABLE E2-1 (continued).

Location	Chain no.	A initial cm	A final cm	B cm	C cm	D cm	July 24, 1978 Comments
Between cross section 6 & 7	1	30.5	10.2	0	0	0	Fairly straignt in alignment, no deposition.
Between cross section 6 & 7	2	30.5	10.2	10.2	7.6	10.2	Straight in alignment, deposition was all fine grained sand, no silt.
Between cross section 6 & 7	3	30.5	30.5	7.6	7.6	7.6	Straight in alignment, deposition was very fine silty material, muck.
Note: High velocity area of channel encompassed both chains 1 and 2.							
Between cross section 12 & 13	1	30.5	30.5	0	7.6	0	Straight in alignment covered with only fine silt, muck, deposit could be from slumping of channel walls.
Between cross section 12 & 13	2	22.9	30.5	0	0	7.6	Very curved in alignment.
Between cross section 12 & 13	3	30.5	30.5	7.6	10.2	10.2	Straight in alignment, deposition very fine grained, no sand.
Note: High velocity area of channel was located between chains 1 and 2.							

TABLE E2-2. SEDIMENT IN TRANSPORT

Sample	Sand >62 μ	Taken:
8-1	32.7	91 m upstream from station 8 in the waterway
8-2	39.9	Just above drop inlet
8-3	17.9	Deposits inside culvert
7-1	33.5	46 m up from station 7 along the edge of waterway
7-2	11.0	23 m up from station 7 in middle of waterway
7-3	66.6	Dried deposits from previous runoff in concrete culvert
Upper 4m-1	67.9	Just above 13, wet caved wall
Upper 4m-2	26.9	Bed load from caved wall
Upper 4m-3	5.4	Dry caved wall
Mid 4m-1	0.0	Dry bank cave-in just below Lincoln gage
Mid 4m-2	6.1	Muck edge of water below Lincoln gage
Mid 4m-3	9.6	Moist bank cave-in just above where 4m-2 was taken
Low 4m-1	26.8	Between cross sections 6 and 7, deposition along edge of water
Low 4m-2	28.9	Very close to edge of water
Low 4m-3	61.4	Edge of caved bank without grass

TABLE E2-3. APRIL 1977 CREEK BED SAMPLES

Cross section	Percentage sand (>62 μ) 0-2.5 cm sample 1	2	3	Avg.	2.5-7.5 cm sample 1	2	3	Avg.	7.5-20 cm sample 1	2	3	Avg.	Cross section average
15	8.9	50.8	32.7	30.8*	11.5	37.5	28.6	25.9	53.6	45.6	34.8	44.7	33.8
14	27.5	45.1	27.2	33.3	39.1	73.9	27.8	46.9	19.6	15.1	14.0	16.2	32.1
13	41.4	55.9	29.2	42.2	74.5	82.1	53.4	70.0	69.3	84.3	86.9	80.2	64.1
12	93.4	63.8	61.1	72.8	54.4	53.0	77.4	61.6	66.4	44.0	31.7	47.4	60.6
11	90.6	85.9	83.2	86.6*	69.0	62.1	86.4	72.5	54.9	27.4	38.6	40.3	66.5
10	22.3	29.4	71.1	40.9	47.3	62.7	61.7	57.2	65.1	50.2	38.9	51.4	49.9
8	30.2	39.8	27.2	32.4	8.5	24.6	28.8	20.6*	6.3	10.6	10.5	9.1*	20.7*
6	37.6	59.2	39.1	45.3	88.1	90.2	76.6	85.0*	87.4	90.5	79.7	85.9*	72.0*
4	59.7	61.3	65.8	62.3	76.7	78.6	69.2	74.8	61.8	72.3	67.7	66.9	68.0
2	50.2	42.9	28.2	28.2	65.3	55.8	15.7	45.6	63.3	15.7	13.4	30.8	38.9

*Asterisks indicate high and low averages.

TABLE E2-4. APRIL 1977 CREEK BED CORE SAMPLES

Cross section	Sample no.	Depth cm	Percent finer than 1000 μ	500	350	250	175	125	88	62
15	1	0-2.5	99.4	99.2	99.0	96.1	94.6	93.6	92.6	91.1
15	1	2.5-7.5	99.6	99.6	99.6	94.7	91.9	90.4	89.5	88.5
15	1	7.5-20	91.3	82.9	72.8	61.6	53.1	49.2	47.5	46.4
15	2	0-2.5	96.9	93.0	84.5	71.4	57.7	53.1	51.2	49.2
15	2	2.5-7.5	95.8	91.6	83.9	76.7	69.3	66.0	64.2	62.5
15	2	7.5-20	89.7	89.7	86.2	76.6	64.1	58.1	55.4	54.4
15	3	0-2.5	96.5	95.5	90.7	81.5	71.7	68.9	68.2	67.3
15	3	2.5-7.5	98.2	98.2	93.6	85.4	74.7	73.7	72.6	71.4
15	3	7.5-20	90.3	87.5	82.4	73.1	71.4	69.0	67.0	65.2
14	1	0-2.5	99.0	95.9	90.2	85.5	81.6	79.1	75.4	72.5
14	1	2.5-7.5	98.1	92.9	87.0	81.9	77.1	72.7	66.0	60.8
14	1	7.5-20	96.2	96.2	93.9	88.5	84.8	83.3	81.9	80.4
14	2	0-2.5	97.3	92.7	81.9	69.6	61.5	58.2	56.6	54.9
14	2	2.5-7.5	61.0	53.7	46.7	37.6	30.6	28.6	27.0	26.1
14	2	7.5-20	99.1	98.3	95.0	90.2	88.5	87.2	86.0	84.9
14	3	0-2.5	98.4	97.1	91.6	86.9	81.1	78.6	76.0	72.8
14	3	2.5-7.5	96.8	94.9	91.5	85.2	79.9	77.0	73.7	72.2
14	3	7.5-20	99.1	98.4	95.6	92.6	90.3	88.9	87.5	86.0
13	1	0-2.5	99.8	97.5	85.7	74.7	66.9	64.1	61.8	58.6
13	1	2.5-7.5	88.5	78.3	61.8	43.7	34.4	31.0	25.5	25.5
13	1	7.5-20	80.4	76.0	59.2	46.0	40.4	37.9	34.3	30.7
13	2	0-2.5	99.2	92.3	79.5	75.6	57.3	52.0	47.7	44.1
13	2	2.5-7.5	88.9	73.0	49.0	30.8	22.8	20.2	17.5	17.9
13	2	7.5-20	92.3	80.9	53.3	27.5	21.1	19.1	17.2	15.7
13	3	0-2.5	93.7	91.9	89.2	83.8	79.7	77.0	73.4	70.8
13	3	2.5-7.5	96.9	93.2	80.6	66.8	54.6	50.9	48.7	46.6
13	3	7.5-20	96.9	85.5	56.5	26.2	13.5	13.3	13.2	13.1
12	1	0-2.5	95.1	83.9	59.4	21.5	7.5	6.6	6.6	6.6
12	1	2.5-7.5	92.2	71.4	58.2	52.5	48.1	46.8	46.2	45.6
12	1	7.5-20	76.7	69.1	54.0	47.8	39.2	35.9	35.0	33.6
12	2	0-2.5	99.0	93.3	76.0	55.4	42.3	38.5	36.7	36.2
12	2	2.5-7.5	93.2	90.9	82.6	69.4	56.0	50.5	47.9	47.0
12	2	7.5-20	99.1	95.6	86.6	76.1	65.0	60.0	57.5	56.0
12	3	0-2.5	93.8	77.4	64.4	50.2	42.8	40.6	39.5	38.9
12	3	2.5-7.5	58.1	51.0	42.6	32.2	25.5	24.1	22.9	22.6
12	3	7.5-20	98.6	98.2	93.7	84.3	75.4	71.7	68.9	68.3
11	1	0-2.5	95.6	72.6	48.6	17.4	11.1	9.9	9.4	9.4
11	1	2.5-7.5	89.0	74.8	50.3	41.4	36.7	34.6	32.5	31.0
11	1	7.5-20	90.8	84.5	68.8	59.1	51.0	48.5	46.4	45.1
11	2	0-2.5	92.8	73.9	41.4	21.4	16.6	15.1	14.1	14.1
11	2	2.5-7.5	96.1	85.3	62.4	46.6	41.6	39.6	38.3	37.9
11	2	7.5-20	100.0	100.0	96.5	86.4	80.9	76.3	73.7	72.6
11	3	0-2.5	95.8	82.0	31.5	21.0	18.1	16.8	16.8	16.8
11	3	2.5-7.5	93.8	63.7	33.7	20.6	16.7	14.9	14.0	13.6
11	3	7.5-20	96.4	96.0	92.0	79.8	72.4	65.8	62.7	61.4

TABLE E2-4 (continued).

Cross section	Sample no.	Depth cm	Percent finer than 1000 μ	500	350	250	175	125	88	62
10	1	0-2.5	98.8	98.5	96.1	92.4	87.8	83.7	80.4	77.7
10	1	2.5-7.5	99.7	99.2	92.2	80.7	67.2	59.1	54.7	52.7
10	1	7.5-20	95.0	84.3	67.0	53.6	41.6	37.6	36.2	34.9
10	2	0-2.5	99.6	99.6	96.6	90.5	83.4	78.2	74.2	70.6
10	2	2.5-7.5	99.6	97.7	89.0	73.2	51.7	42.6	38.8	37.3
10	2	7.5-20	99.0	96.8	83.9	67.9	55.1	51.3	49.8	49.8
10	3	0-2.5	96.7	86.7	70.8	49.8	35.3	31.7	29.9	28.9
10	3	2.5-7.5	98.7	91.3	80.6	62.0	46.2	41.1	39.2	38.3
10	3	7.5-20	99.7	99.7	94.2	83.9	71.3	65.0	62.7	61.1
8	1	0-2.5	99.5	95.4	87.3	78.8	72.7	71.1	70.3	69.8
8	1	2.5-7.5	99.4	98.9	96.9	95.3	93.9	93.1	92.2	91.5
8	1	7.5-20	99.1	99.0	98.1	96.1	95.6	94.9	94.4	93.7
8	2	0-2.5	100.0	92.4	82.0	73.3	65.7	62.9	61.3	60.2
8	2	2.5-7.5	100.0	97.3	90.5	84.6	80.2	78.3	76.8	75.4
8	2	7.5-20	99.3	99.0	97.5	94.9	92.5	91.3	90.3	89.4
8	3	0-2.5	100.0	98.9	93.4	85.6	79.1	75.8	73.9	72.8
8	3	2.5-7.5	99.4	99.4	96.7	86.7	78.1	75.0	72.6	71.2
8	3	7.5-20	100.0	100.0	99.4	95.8	93.1	91.6	90.6	89.5
6	1	0-2.5	99.5	95.7	81.5	73.1	67.4	65.1	63.5	62.4
6	1	2.5-7.5	99.1	80.3	49.0	20.3	14.1	12.7	11.9	11.9
6	1	7.5-20	98.4	75.3	53.6	21.0	15.0	14.0	13.1	12.6
6	2	0-2.5	99.0	86.6	59.8	53.6	43.6	42.2	41.2	40.8
6	2	2.5-7.5	99.4	87.0	46.9	16.9	10.3	9.8	9.8	9.8
6	2	7.5-20	99.3	80.1	41.6	15.3	10.4	9.9	9.5	9.5
6	3	0-2.5	99.3	98.5	87.7	76.1	68.1	65.2	63.1	60.1
6	3	2.5-7.5	100.0	94.4	78.2	50.2	29.0	25.1	23.9	23.4
6	3	7.5-20	89.9	86.5	69.4	42.5	25.5	22.4	21.6	20.3
4	1	0-2.5	84.6	79.3	69.1	55.8	43.9	41.7	40.8	40.3
4	1	2.5-7.5	93.7	86.3	72.2	48.4	27.6	24.9	24.1	23.3
4	1	7.5-20	99.6	99.6	91.0	68.3	48.0	40.7	38.2	38.2
4	2	0-2.5	82.7	77.2	61.2	49.0	41.6	39.8	39.2	38.7
4	2	2.5-7.5	79.4	67.1	47.9	34.5	25.4	22.5	21.8	21.4
4	2	7.5-20	96.8	93.1	81.9	61.7	38.3	30.3	28.3	27.7
4	3	0-2.5	92.8	75.7	60.6	46.9	38.2	35.5	34.6	34.2
4	3	2.5-7.5	98.3	85.9	70.7	53.1	37.4	32.7	31.6	30.8
4	3	7.5-20	90.8	75.5	64.0	50.0	38.5	35.2	33.9	33.3
2	1	0-2.5	93.2	85.0	74.4	62.1	53.9	51.5	50.6	49.8
2	1	2.5-7.5	92.0	74.2	60.3	44.8	37.5	35.9	34.9	34.7
2	1	7.5-20	89.5	75.5	60.6	46.6	39.8	37.9	36.7	36.7
2	2	0-2.5	99.3	88.4	76.1	65.3	60.1	58.6	57.6	57.1
2	2	2.5-7.5	95.1	84.5	67.3	53.5	47.4	46.1	44.7	44.2
2	2	7.5-20	98.0	97.2	94.7	92.3	89.7	87.5	85.7	84.3
2	3	0-2.5	98.1	96.4	92.1	85.0	79.0	75.6	73.3	71.8
2	3	2.5-7.5	99.3	98.4	95.0	91.6	88.9	87.0	85.4	84.3
2	3	7.5-20	99.8	99.4	99.0	96.4	93.2	90.3	88.1	86.6

TABLE E2-5. JUNE 1978 CREEK BED CORE SAMPLES

Cross section	Sample no.	Depth cm	Percent finer than 1000 μ	500	350	250	175	125	88	62
15	1	0-2.5	97.1	96.3	93.3	89.2	85.6	84.7	84.5	84.4
15	1	2.5-7.5	63.6	54.5	46.8	39.6	35.5	34.6	34.6	34.6
15	1	7.5-20	92.8	92.8	85.6	69.2	49.2	44.9	42.8	42.8
15	2	0-2.5	97.5	97.1	92.5	83.3	70.1	65.7	64.8	64.8
15	2	2.5-7.5	97.1	78.8	67.1	53.1	41.9	38.6	37.0	37.0
15	2	7.5-20	98.7	89.5	61.7	31.5	20.5	20.1	20.1	20.1
15	3	0-2.5	91.9	91.9	90.4	85.9	80.8	78.9	78.2	78.2
15	3	2.5-7.5	97.3	95.6	90.6	83.2	75.1	72.4	71.4	70.1
15	3	7.5-20	93.4	92.6	80.7	67.5	58.8	57.1	56.4	56.4
14	1	0-2.5	94.1	93.5	92.3	89.9	87.5	86.2	85.8	85.6
14	1	2.5-7.5	94.1	94.1	92.8	89.0	86.0	84.4	83.3	83.0
14	1	7.5-20	94.4	94.3	92.7	89.4	84.6	81.6	80.0	79.1
14	2	0-2.5	91.0	89.9	87.3	83.7	78.9	76.8	76.3	76.0
14	2	2.5-7.5	53.2	50.0	46.7	41.9	37.0	35.8	35.1	35.1
14	2	7.5-20	85.5	82.4	77.3	71.1	68.3	67.2	66.7	66.4
14	3	0-2.5	95.2	93.5	91.2	88.2	84.2	82.5	81.2	80.8
14	3	2.5-7.5	96.3	93.9	91.7	88.1	83.5	81.2	79.8	79.2
14	3	7.5-20	98.6	97.7	94.8	90.0	85.7	84.0	83.1	82.9
13	1	0-2.5	98.0	94.4	80.7	64.0	52.8	49.7	48.4	47.6
13	1	2.5-7.5	99.1	99.1	98.8	96.6	92.5	88.6	87.2	86.5
13	1	7.5-20	98.3	98.3	98.0	95.0	93.5	92.8	92.3	91.9
13	2	0-2.5	96.0	96.0	96.0	95.8	94.6	93.7	92.2	91.3
13	2	2.5-7.5	98.1	98.1	98.1	97.1	95.9	94.7	94.4	94.1
13	2	7.5-20	99.8	98.8	92.6	83.3	72.6	67.0	65.7	65.0
13	3	0-2.5	93.1	92.8	91.9	90.4	89.3	88.5	87.8	87.5
13	3	2.5-7.5	98.9	98.7	98.2	95.7	92.4	88.4	86.2	85.3
13	3	7.5-20	95.8	84.3	70.5	56.0	48.5	47.2	45.9	45.9
12	1	0-2.5	98.8	98.0	92.9	84.8	76.6	72.6	70.7	69.9
12	1	2.5-7.5	98.5	86.3	57.2	25.4	16.5	15.9	15.9	15.9
12	1	7.5-20	97.9	96.7	88.5	73.0	53.7	45.1	43.1	43.1
12	2	0-2.5	86.3	76.2	53.7	47.5	44.6	44.1	44.1	44.1
12	2	2.5-7.5	95.0	88.9	75.9	63.0	55.7	54.6	53.8	53.8
12	2	7.5-20	97.4	87.6	75.4	62.1	51.4	47.0	45.3	44.6
12	3	0-2.5	88.5	57.8	53.8	51.8	50.5	50.2	49.3	48.8
12	3	2.5-7.5	81.9	71.8	58.8	47.3	42.2	40.3	39.4	39.0
12	3	7.5-20	100.0	83.2	63.4	35.3	20.0	16.2	15.6	15.6
11	1	0-2.5	98.7	98.7	93.4	81.9	69.6	65.1	63.4	62.6
11	1	2.5-7.5	100.0	100.0	92.0	76.4	59.1	54.5	53.1	52.7
11	1	7.5-20	96.1	89.4	84.9	61.8	49.8	45.9	44.3	43.7
11	2	0-2.5	94.2	92.8	75.0	55.7	43.6	40.9	40.2	40.2
11	2	2.5-7.5	97.5	95.5	88.9	76.7	64.0	60.0	59.1	58.7
11	2	7.5-20	93.2	93.2	91.8	88.3	83.4	80.9	79.8	79.3
11	3	0-2.5	94.6	94.6	88.5	82.2	75.3	72.2	70.8	70.0
11	3	2.5-7.5	99.8	99.5	96.7	92.2	87.5	85.5	84.4	83.9
11	3	7.5-20	--	--	--	--	--	--	--	--

TABLE E2-5 (continued).

Cross section	Sample no.	Depth cm	Percent finer than 1000 μ	500	350	250	175	125	88	62
10	1	0-2.5	98.5	87.1	60.1	32.3	10.9	7.3	6.6	5.2
10	1	2.5-7.5	97.5	95.6	88.8	77.1	62.1	56.3	54.5	54.3
10	1	7.5-20	93.7	88.8	78.9	63.2	48.2	43.6	42.5	42.1
10	2	0-2.5	80.4	63.8	56.3	46.7	41.4	39.7	39.3	39.3
10	2	2.5-7.5	95.4	92.6	80.8	54.4	42.1	39 8	39.3	39.3
10	2	7.5-20	90.0	77.9	57.1	38.5	32.5	31.3	31.1	31.1
10	3	0-2.5	68.7	62.6	53.0	42.5	34.9	31.4	30.4	30.4
10	3	2.5-7.5	100.0	100.0	98.6	93.5	89.6	88.1	87.5	87.2
10	3	7.5-20	100.0	100.0	98.5	93.1	86.5	83.2	82.0	81.5
8	1	0-2.5	99.2	93.4	80.4	69.7	65.1	64.3	63.8	63.3
8	1	2.5-7.5	98.3	98.3	97.2	94.3	92.4	91.4	90.5	89.8
8	1	7.5-20	99.0	99.0	97.3	92.4	89.0	87.6	86.7	86.3
8	2	0-2.5	98.3	97.7	96.4	95.3	94.4	94.0	93.7	93.3
8	2	2.5-7.5	--	--	--	--	--	--	--	--
8	2	7.5-20	100.0	100.0	99.5	98.7	98.0	97.5	97.2	96.9
8	3	0-2.5	99.6	85.0	51.2	18.3	11.0	9.7	9.7	9.7
8	3	2.5-7.5	97.4	80.2	56.5	25.8	18.9	17.8	17.8	17.8
8	3	7.5-20	99.2	99.2	97.9	92.3	87.3	85.3	84.1	83.5
6	1	0-2.5	97.7	85.7	54.4	23.0	7.4	7.4	7.4	7.4
6	1	2.5-7.5	98.2	98.2	70.1	28.8	22.4	22.1	22.1	22.1
6	1	7.5-20	84.0	72.0	48.8	27.7	20.7	19.6	19.6	19.6
6	2	0-2.5	74.7	52.3	33.3	23.7	19.9	18.4	17.5	17.5
6	2	2.5-7.5	96.0	96.0	95.8	94.7	93.4	92.6	91.7	91.4
6	2	7.5-20	100.0	100.0	100.0	99.8	99.5	99.1	98.8	98.6
6	3	0-2.5	77.9	63.3	39.6	14.2	9.6	9.5	9.5	9.5
6	3	2.5-7.5	91.2	75.4	59.1	51.2	47.9	46.7	46.2	46.2
6	3	7.5-20	94.1	69.6	40.8	10.6	6.3	4.8	4.1	4.1
4	1	0-2.5	98.2	91.6	79.2	50.6	23.2	19.2	17.7	17.7
4	1	2.5-7.5	94.2	78.5	64.6	48.4	35.6	31.5	29.1	28.3
4	1	7.5-20	93.6	80.6	61.7	40.0	34.6	33.1	32.4	32.0
4	2	0-2.5	97.9	82.3	67.5	36.3	31.6	28.7	28.3	28.3
4	2	2.5-7.5	99.8	90.2	67.5	38.1	12.0	9.2	9.2	9.2
4	2	7.5-20	72.8	63.0	53.8	45.2	42.8	41.8	41.1	41.1
4	3	0-2.5	71.8	57.3	43.1	31.0	26.9	26.6	25.9	25.9
4	3	2.5-7.5	52.5	48.3	43.2	36.0	29.1	27.7	27.2	27.2
4	3	7.5-20	99.3	94.4	78.8	60.6	41.9	36.7	35.6	35.2
2	1	0-2.5	80.4	53.7	36.9	24.8	22.1	21.4	21.4	21.4
2	1	2.5-7.5	89.0	64.7	45.6	27.8	22.1	20.8	20.8	20.8
2	1	7.5-20	94.0	68.1	37.5	13.7	11.1	10.4	10.1	10.1
2	2	0-2.5	70.5	56.5	47.9	38.0	30.6	28.4	27.6	27.4
2	2	2.5-7.5	98.2	96.2	91.9	86.1	79.7	76.9	75.3	74.6
2	2	7.5-20	69.2	67.1	58.9	50.4	44.0	41.8	40.9	40.6
2	3	0-2.5	85.8	58.3	43.1	31.3	27.2	25.9	25.1	24.5
2	3	2.5-7.5	91.1	73.5	53.8	39.6	35.2	34.1	33.3	33.0
2	3	7.5-20	88.3	71.7	57.8	46.0	37.4	34.7	33.8	33.4

TABLE E2-6. JUNE 1978 CREEK BED SAMPLES

Cross section	Percentage sand (>62 μ) 0-2.5 cm sample 1	2	3	Avg.	2.5-7.5 cm sample 1	2	3	Avg.	7.5-20 cm sample 1	2	3	Avg.	Cross section average
15	15.6	35.2	21.8	24.2	65.4	63.0	29.9	52.8	57.2	79.9	43.6	60.2	45.7
14	14.4	24.0	19.2	19.2*	17.0	64.9	20.8	34.2	20.0	33.6	17.1	23.5	25.6
13	52.5	8.7	12.5	24.6	13.5	5.9	14.7	11.4*	8.1	35.0	54.1	32.4	22.8*
12	30.1	55.9	51.2	45.7	84.1	46.2	61.0	63.8	56.9	55.5	84.4	58.7	56.1
11	37.4	59.8	30.0	42.4	47.3	41.3	16.1	34.9	56.3	20.7	--	25.7	34.3
10	94.8	60.7	69.6	75.0	45.7	60.7	12.8	39.7	57.9	68.9	18.5	48.4	54.4
8	36.7	6.7	90.3	44.6	10.2	--	82.2	30.8	13.7	3.1	16.5	11.1*	28.8
6	92.6	82.5	90.5	88.5*	77.9	8.6	53.8	46.8	80.4	1.4	95.9	59.2	64.8
4	82.3	71.7	74.1	76.0	71.7	90.8	72.8	78.4*	68.0	58.9	64.8	63.9	72.8*
2	78.6	72.6	75.5	75.6	79.2	25.4	67.0	57.2	89.9	59.4	66.6	72.0*	68.3

*Asterisks indicate high and low averages.

APPENDIX F

NUTRIENT, DISSOLVED SOLIDS, AND SEDIMENT DATA

TABLE F1- 1. FOUR MILE CREEK WATERSHED SOIL CORE NUTRIENT DATA FOR 1976

SITE	DATE	DEPTH CM	NH4-N	NO3-N	PO4-P	CL	EXT N	AVL P	H2O
			------SOLUBLE PPM-----				--SOIL PPM--		%
1-1	5/28/76	0-1	0.0	11.5	0.26	5.3	0.70	13.7	21.0
1-1	5/28/76	1-7.5	0.0	11.5	0.26	5.3	0.70	13.7	21.0
1-1	5/28/76	7.5-15	0.0	13.8	1.20	8.4	0.85	27.6	28.7
1-1	5/28/76	15-30	0.0	13.8	0.04	11.4	1.75	11.5	26.3
1-1	5/28/76	30-45	0.10	14.3	0.02	22.0	1.50	10.2	25.3
1-1	5/28/76	45-60	0.05	7.4	0.04	22.0	1.00	13.0	25.2
1-1	5/28/76	60-90	0.0	0.9	0.17	9.7	0.45	13.5	26.8
1-1	5/28/76	90-120	0.0	0.4	0.93	8.8	0.15	16.5	25.8
1-1	5/28/76	120-150	0.0	0.5	0.75	4.6	0.05	9.1	26.1
1-2	5/28/76	0-1	0.0	11.6	1.12	5.5	1.30	18.6	23.1
1-2	5/28/76	1-7.5	0.0	11.6	1.12	5.5	1.30	18.6	23.1
1-2	5/28/76	7.5-15	0.0	11.0	0.65	5.4	1.00	18.4	29.1
1-2	5/28/76	15-30	0.05	8.1	0.23	19.7	1.45	11.7	31.3
1-2	5/28/76	30-45	0.10	4.0	0.23	9.4	2.80	1.8	29.8
1-2	5/28/76	45-60	0.05	9.4	0.16	7.3	2.50	0.7	27.1
1-2	5/28/76	60-90	0.0	2.1	0.10	10.1	2.10	0.3	26.9
1-2	5/28/76	90-120	0.0	0.8	0.11	5.7	1.10	0.4	31.3
1-2	5/28/76	120-150	0.0	0.9	0.13	3.8	0.20	1.2	33.3
1-3	5/28/76	0-1	0.25	3.0	0.22	6.3	0.45	5.5	21.0
1-3	5/28/76	1-7.5	0.25	3.0	0.22	6.3	0.45	5.5	21.0
1-3	5/28/76	7.5-15	0.20	8.3	0.29	7.2	0.60	5.6	26.9
1-3	5/28/76	15-30	0.05	5.1	0.06	7.2	0.65	0.8	28.3
1-3	5/28/76	30-45	0.05	2.5	0.01	6.8	1.40	1.8	25.9
1-3	5/28/76	45-60	0.05	1.9	0.02	6.8	1.55	13.4	24.6
1-3	5/28/76	60-90	0.05	0.3	0.15	5.4	0.70	23.5	25.9
1-3	5/28/76	90-120	0.10	0.1	0.35	5.2	0.60	21.8	28.1
1-3	5/28/76	120-150	0.05	0.1	0.66	4.3	0.55	18.5	30.0
1-4	5/28/76	0-1	0.0	1.2	0.0	6.1	0.15	6.8	21.5
1-4	5/28/76	1-7.5	0.0	1.2	0.0	6.1	0.15	6.8	21.5
1-4	5/28/76	7.5-15	0.05	13.9	0.73	7.2	0.85	19.2	28.2
1-4	5/28/76	15-30	0.35	6.5	0.19	6.5	1.30	2.7	28.1
1-4	5/28/76	30-45	0.05	1.8	0.10	8.8	1.85	1.8	25.9
1-4	5/28/76	45-60	0.0	1.7	0.05	7.6	1.50	3.9	26.4
1-4	5/28/76	60-90	0.10	1.0	0.07	5.2	1.60	26.6	26.6
1-4	5/28/76	90-120	0.0	0.8	0.18	4.9	1.10	25.1	29.0
1-4	5/28/76	120-150	0.10	0.8	0.39	6.8	0.70	22.8	30.6
1-5	5/28/76	0-1	0.0	12.8	0.18	5.7	0.80	5.5	17.9
1-5	5/28/76	1-7.5	0.0	12.8	0.18	5.7	0.80	5.5	17.9
1-5	5/28/76	7.5-15	0.05	12.1	0.16	5.0	0.60	6.3	25.8
1-5	5/28/76	15-30	0.05	4.9	0.15	6.1	1.20	3.3	26.6
1-5	5/28/76	30-45	0.0	0.6	0.0	11.1	1.90	1.2	26.4
1-5	5/28/76	45-60	0.0	2.2	0.0	20.2	2.10	3.5	26.5
1-5	5/28/76	60-90	0.0	2.5	0.02	13.2	1.40	19.9	25.9
1-5	5/28/76	90-120	0.15	1.1	0.15	5.6	0.80	26.7	27.6
1-5	5/28/76	120-150	0.0	0.2	0.30	3.6	0.45	19.4	29.8
1-6	5/28/76	0-1	0.0	6.5	0.0	6.3	0.55	2.9	20.2
1-6	5/28/76	1-7.5	0.0	6.5	0.0	6.3	0.55	2.9	20.2
1-6	5/28/76	7.5-15	0.0	0.5	1.51	6.4	1.15	26.6	30.1
1-6	5/28/76	15-30	0.0	0.2	0.13	4.3	0.65	9.5	29.5
1-6	5/28/76	30-45	0.0	1.1	0.05	5.8	1.00	9.6	27.1
1-6	5/28/76	45-60	0.0	0.4	0.11	5.8	0.95	10.2	27.5
1-6	5/28/76	60-90	0.0	0.2	0.33	5.4	0.80	8.3	28.1
1-6	5/28/76	90-120	0.0	0.3	0.23	3.2	0.60	2.7	27.7
1-6	5/28/76	120-150	0.0	0.3	0.12	2.6	0.45	1.4	30.4
1-7	5/28/76	0-1	0.0	4.1	0.07	4.3	0.55	3.6	22.4
1-7	5/28/76	1-7.5	0.0	4.1	0.07	4.3	0.55	3.6	22.4
1-7	5/28/76	7.5-15	0.0	4.0	0.42	6.1	1.30	28.3	29.6
1-7	5/28/76	15-30	0.0	4.8	0.05	12.9	0.95	3.2	27.9
1-7	5/28/76	30-45	0.0	2.1	0.06	5.7	1.20	20.0	26.6
1-7	5/28/76	45-60	0.0	0.8	0.07	9.5	1.60	27.6	25.5
1-7	5/28/76	60-90	0.0	0.2	0.11	4.3	0.80	26.1	27.9
1-7	5/28/76	90-120	0.0	0.3	0.24	3.8	0.45	19.3	30.9
1-7	5/28/76	120-150	0.0	0.3	0.44	3.2	0.45	14.5	29.8
1-8	5/28/76	0-1	0.0	0.5	0.30	5.0	0.60	9.6	22.5
1-8	5/28/76	1-7.5	0.0	0.5	0.30	5.0	0.60	9.6	22.5
1-8	5/28/76	7.5-15	0.05	7.7	0.21	6.0	0.90	8.0	29.3
1-8	5/28/76	15-30	0.10	7.5	0.14	5.0	0.70	2.0	29.9
1-8	5/28/76	30-45	0.20	7.2	0.18	8.4	0.55	2.6	39.1
1-8	5/28/76	45-60	0.45	12.2	0.32	14.9	0.65	1.8	33.2
1-8	5/28/76	60-90	0.20	6.2	0.05	7.2	0.80	2.5	33.4
1-8	5/28/76	90-120	0.20	1.3	0.28	5.0	1.00	6.1	37.3
1-8	5/28/76	120-150	0.25	1.5	0.60	5.7	0.55	8.3	33.1

TABLE F1- 1. CONTINUED

SITE	DATE	DEPTH CM	NH4-N	NO3-N	PO4-P	CL	EXT N	AVL P	H2O
			------SOLUBLE PPM-----				--SOIL PPM--		%
2-1	5/28/76	0-1	0.0	27.7	0.33	7.8	5.20	22.2	24.6
2-1	5/28/76	1-7.5	0.0	27.7	0.33	7.8	5.20	22.2	24.6
2-1	5/28/76	7.5-15	0.0	29.2	0.28	4.9	2.80	13.2	26.3
2-1	5/28/76	15-30	0.10	16.4	0.28	7.7	1.95	8.1	26.4
2-1	5/28/76	30-45	0.10	14.6	0.17	11.5	0.50	3.6	28.7
2-1	5/28/76	45-60	0.30	20.6	0.18	14.6	1.70	3.8	38.3
2-1	5/28/76	60-90	0.30	10.2	0.25	12.8	0.70	3.1	28.7
2-1	5/28/76	90-120	0.0	4.1	0.09	4.0	0.40	4.5	31.8
2-1	5/28/76	120-150	0.0	1.5	0.09	5.9	0.0	5.0	30.4
2-2	5/28/76	0-1	0.0	95.6	0.32	5.3	0.40	22.0	25.9
2-2	5/28/76	1-7.5	0.0	95.6	0.32	5.3	0.40	22.0	25.9
2-2	5/28/76	7.5-15	0.0	1.5	0.07	6.3	1.05	8.0	26.8
2-2	5/28/76	15-30	0.0	34.9	0.0	8.9	1.65	1.8	26.2
2-2	5/28/76	30-45	0.0	16.0	0.0	23.3	1.10	9.7	24.9
2-2	5/28/76	45-60	0.0	10.8	0.06	22.0	1.20	14.0	25.5
2-2	5/28/76	60-90	0.0	8.9	0.21	10.3	1.05	19.1	24.7
2-2	5/28/76	90-120	0.05	5.0	0.82	4.2	0.65	21.6	25.6
2-2	5/28/76	120-150	0.0	3.0	1.00	2.2	0.40	15.1	27.4
2-3	5/28/76	0-1	0.0	42.8	1.36	8.8	4.60	25.6	28.0
2-3	5/28/76	1-7.5	0.0	42.8	1.36	8.8	4.60	25.6	28.0
2-3	5/28/76	7.5-15	0.0	47.6	0.15	10.9	2.60	17.9	30.5
2-3	5/28/76	15-30	0.0	35.0	0.0	20.2	2.00	1.7	29.2
2-3	5/28/76	30-45	0.0	16.9	0.05	12.3	2.30	0.8	26.4
2-3	5/28/76	45-60	0.0	7.8	0.30	11.5	1.90	0.6	25.4
2-3	5/28/76	60-90	0.0	5.0	0.07	3.8	1.60	0.3	26.1
2-3	5/28/76	90-120	0.0	5.9	0.0	6.3	1.10	1.1	32.2
2-3	5/28/76	120-150	0.0	7.1	0.0	8.0	0.0	1.8	36.3
2-4	5/28/76	0-1	0.0	83.9	0.72	4.1	0.40	31.8	23.4
2-4	5/28/76	1-7.5	0.0	83.9	0.72	4.1	0.40	31.8	23.4
2-4	5/28/76	7.5-15	0.0	65.6	0.09	4.0	0.25	8.4	25.2
2-4	5/28/76	15-30	0.0	37.9	0.01	12.0	2.55	2.6	29.0
2-4	5/28/76	30-45	0.0	12.3	0.0	13.4	3.20	2.2	28.0
2-4	5/28/76	45-60	0.15	7.1	0.05	6.3	2.50	6.9	27.6
2-4	5/28/76	60-90	0.0	4.2	0.06	2.8	1.20	9.4	27.1
2-4	5/28/76	90-120	0.0	3.4	0.09	2.3	0.30	7.7	28.1
2-4	5/28/76	120-150	0.0	1.9	0.19	2.5	0.20	3.6	30.5
2-5	5/28/76	0-1	0.0	37.9	0.15	4.0	0.75	9.0	22.7
2-5	5/28/76	1-7.5	0.0	37.9	0.15	4.0	0.75	9.0	22.7
2-5	5/28/76	7.5-15	0.05	25.3	0.01	6.4	0.35	2.9	25.3
2-5	5/28/76	15-30	0.0	12.6	0.01	10.7	3.40	1.8	28.2
2-5	5/28/76	30-45	0.0	9.7	0.02	6.9	3.05	3.5	27.6
2-5	5/28/76	45-60	0.0	7.1	0.04	2.8	2.80	11.6	27.5
2-5	5/28/76	60-90	0.0	3.1	0.07	2.2	1.80	18.1	27.1
2-5	5/28/76	90-120	0.0	0.4	0.02	3.0	0.20	15.8	30.6
2-5	5/28/76	120-150	0.0	0.3	0.68	2.3	0.0	13.3	29.6
2-6	5/28/76	0-1	0.0	94.5	0.94	6.9	0.75	32.3	24.0
2-6	5/28/76	1-7.5	0.0	94.5	0.94	6.9	0.75	32.3	24.0
2-6	5/28/76	7.5-15	0.0	44.6	0.04	10.7	0.60	3.1	24.9
2-6	5/28/76	15-30	0.0	23.9	0.04	12.9	0.85	3.4	27.0
2-6	5/28/76	30-45	0.0	14.5	0.03	38.5	2.50	1.8	27.4
2-6	5/28/76	45-60	0.0	8.8	0.02	7.4	1.85	1.4	26.8
2-6	5/28/76	60-90	0.0	5.1	0.06	3.1	1.65	20.0	26.5
2-6	5/28/76	90-120	0.05	1.6	0.20	2.2	0.85	30.1	27.2
2-6	5/28/76	120-150	0.0	1.4	0.37	2.9	0.15	25.2	29.5
2-7	5/28/76	0-1	0.0	28.5	0.96	3.0	0.20	21.4	22.8
2-7	5/28/76	1-7.5	0.0	28.5	0.96	3.0	0.20	21.4	22.8
2-7	5/28/76	7.5-15	0.0	36.6	0.04	2.5	0.35	3.3	24.9
2-7	5/28/76	15-30	0.0	20.2	0.05	4.9	1.95	2.4	28.6
2-7	5/28/76	30-45	0.0	10.6	0.02	15.5	3.40	1.4	27.7
2-7	5/28/76	45-60	0.0	8.0	0.02	10.5	3.35	0.5	27.2
2-7	5/28/76	60-90	0.0	5.4	0.0	3.0	2.25	0.5	28.1
2-7	5/28/76	90-120	0.0	3.6	0.07	4.6	0.50	2.0	28.8
2-7	5/28/76	120-150	0.0	1.8	0.13	2.5	0.0	3.2	28.6
2-8	5/28/76	0-1	0.0	36.8	0.15	4.4	0.45	11.3	21.9
2-8	5/28/76	1-7.5	0.0	36.8	0.15	4.4	0.45	11.3	21.9
2-8	5/28/76	7.5-15	0.0	27.3	0.0	4.6	0.70	2.2	23.5
2-8	5/28/76	15-30	0.0	10.1	0.0	5.6	1.10	0.9	25.1
2-8	5/28/76	30-45	0.0	6.1	0.0	7.6	1.30	1.2	25.3
2-8	5/28/76	45-60	0.0	3.3	0.0	4.4	1.40	10.9	25.2
2-8	5/28/76	60-90	0.0	1.0	0.22	2.8	0.85	23.2	26.9
2-8	5/28/76	90-120	0.0	0.5	0.66	2.8	0.15	24.2	29.8
2-8	5/28/76	120-150	0.0	0.4	1.23	4.6	0.05	20.5	31.1

TABLE F1- 1. CONCLUDED

SITE	DATE	DEPTH CM	NH4-N	NO3-N	PO4-P	CL	EXT N	AVL P	H2O
			SOLUBLE PPM				SOIL PPM		%
3-1	5/28/76	0-1	0.20	11.5	0.39	10.2	2.30	9.5	16.5
3-1	5/28/76	1-7.5	0.20	11.5	0.39	10.2	2.30	9.5	16.5
3-1	5/28/76	7.5-15	0.25	10.9	0.23	11.1	2.15	3.9	17.0
3-1	5/28/76	15-30	0.0	6.2	0.23	7.3	3.25	2.4	17.9
3-1	5/28/76	30-45	0.0	1.7	0.11	6.1	3.65	2.2	24.7
3-1	5/28/76	45-60	0.45	2.4	0.02	12.2	2.75	4.7	22.0
3-1	5/28/76	60-90	0.0	12.7	0.01	21.7	2.00	30.6	23.5
3-1	5/28/76	90-120	0.0	0.0	0.06	4.5	0.55	32.7	26.2
3-1	5/28/76	120-150	0.0	0.0	0.58	7.3	0.0	28.9	29.0
3-2	5/28/76	0-1	1.10	4.1	0.47	10.6	11.40	5.6	19.1
3-2	5/28/76	1-7.5	1.10	4.1	0.47	10.6	11.40	5.6	19.1
3-2	5/28/76	7.5-15	0.80	5.7	0.25	22.6	10.50	2.8	18.9
3-2	5/28/76	15-30	0.0	2.3	1.25	4.9	3.65	2.0	20.7
3-2	5/28/76	30-45	0.0	0.0	0.10	2.7	1.50	1.0	21.4
3-2	5/28/76	45-60	0.0	0.0	0.03	3.3	1.15	3.4	22.2
3-2	5/28/76	60-90	0.0	0.0	0.08	4.1	1.35	31.8	22.7
3-2	5/28/76	90-120	0.0	0.0	0.10	2.1	0.40	33.7	23.8
3-2	5/28/76	120-150	0.0	0.0	0.35	3.8	0.25	30.0	26.5
3-3	5/28/76	0-1	0.0	3.8	0.19	11.1	5.05	4.8	17.1
3-3	5/28/76	1-7.5	0.0	3.8	0.19	11.1	5.05	4.8	17.1
3-3	5/28/76	7.5-15	0.0	2.7	0.22	9.4	5.65	2.2	19.7
3-3	5/28/76	15-30	0.0	1.1	0.11	2.8	4.10	1.6	22.0
3-3	5/28/76	30-45	0.0	0.5	0.03	2.4	2.15	2.3	21.3
3-3	5/28/76	45-60	0.0	2.3	0.08	4.0	1.50	1.5	22.5
3-3	5/28/76	60-90	0.0	0.0	0.0	9.5	0.10	0.3	21.5
3-3	5/28/76	90-120	0.0	0.0	0.0	7.7	0.45	0.4	21.8
3-3	5/28/76	120-150	0.0	0.0	0.04	4.7	0.10	0.8	22.2
3-4	5/28/76	0-1	0.0	31.5	0.19	7.6	0.95	2.8	33.0
3-4	5/28/76	1-7.5	0.0	31.5	0.19	7.6	0.95	2.8	33.0
3-4	5/28/76	7.5-15	0.0	15.4	0.14	4.7	0.35	1.0	33.1
3-4	5/28/76	15-30	0.0	9.2	0.07	3.9	0.50	2.9	32.3
3-4	5/28/76	30-45	0.0	6.8	0.18	4.2	0.20	2.7	34.8
3-4	5/28/76	45-60	0.0	6.5	0.17	3.8	0.10	3.2	34.0
3-4	5/28/76	60-90	0.0	3.7	0.10	3.8	0.0	1.7	34.4
3-4	5/28/76	90-120	0.0	0.6	0.12	3.8	0.30	2.6	39.5
3-4	5/28/76	120-150	0.0	0.4	0.20	3.8	0.10	4.0	34.2
3-5	5/28/76	0-1	0.0	5.4	0.09	4.2	0.10	1.3	15.9
3-5	5/28/76	1-7.5	0.0	5.4	0.09	4.2	0.10	1.3	15.9
3-5	5/28/76	7.5-15	0.0	6.1	0.17	9.0	2.15	0.7	18.4
3-5	5/28/76	15-30	0.0	3.1	0.05	2.8	3.25	0.5	20.9
3-5	5/28/76	30-45	0.0	2.2	0.01	2.3	2.40	0.0	21.5
3-5	5/28/76	45-60	0.0	1.9	0.0	1.6	1.80	0.0	22.3
3-5	5/28/76	60-90	0.0	0.3	0.0	6.5	0.0	0.2	23.6
3-5	5/28/76	90-120	0.15	0.0	0.03	4.6	0.25	0.5	23.9
3-5	5/28/76	120-150	0.0	0.0	0.03	2.3	0.20	0.3	25.3

SITE	DATE	NH4-N	NO3-N	PO4-P	CL	EXT N	AVL P	H2O
		KG/HA						CM
1-1	5/28/76	0.3	97.8	9.1	209.3	11.9	260.4	50.6
1-2	5/28/76	0.4	77.5	4.2	156.4	28.2	69.1	58.2
1-3	5/28/76	1.5	30.9	5.4	111.8	15.1	296.0	53.0
1-4	5/28/76	1.6	43.7	3.9	124.1	23.2	338.8	54.3
1-5	5/28/76	0.7	53.3	2.5	169.3	21.6	290.8	52.4
1-6	5/28/76	0.0	13.3	4.7	87.0	13.9	131.7	55.0
1-7	5/28/76	0.0	25.5	4.0	107.8	15.5	364.6	55.4
1-8	5/28/76	4.1	94.1	5.5	135.8	14.4	97.0	65.6
2-1	5/28/76	2.1	213.5	3.5	165.6	19.7	113.1	58.7
2-2	5/28/76	0.2	273.9	8.7	178.8	17.1	299.6	50.5
2-3	5/28/76	0.0	269.5	2.4	173.8	29.0	60.0	58.7
2-4	5/28/76	0.3	286.8	2.3	97.3	22.7	142.4	54.8
2-5	5/28/76	0.0	129.9	3.4	78.1	26.1	231.8	55.1
2-6	5/28/76	0.2	252.1	3.7	159.6	21.5	348.3	53.2
2-7	5/28/76	0.0	177.5	1.9	103.7	27.6	54.5	54.4
2-8	5/28/76	0.0	105.1	8.7	82.8	12.3	309.3	53.7
3-1	5/28/76	1.3	91.0	3.9	201.8	32.3	400.0	46.9
3-2	5/28/76	1.8	14.0	5.4	93.0	40.7	402.9	45.0
3-3	5/28/76	0.0	13.8	1.0	124.8	27.3	22.9	42.1
3-4	5/28/76	0.0	106.1	2.8	80.5	4.4	53.6	68.6
3-5	5/28/76	0.6	26.2	0.6	79.1	17.8	6.9	44.6

TABLE F1- 2. FOUR MILE CREEK WATERSHED SOIL CORE NUTRIENT DATA FOR 1976

SITE	DATE	DEPTH CM	NH4-N	NO3-N	PO4-P	CL	EXT N	AVL P	H2O
			SOLUBLE PPM				SOIL PPM		%
1-1	6/21/76	0-1	0.90	33.5	0.28	6.8	8.10	15.1	3.2
1-1	6/21/76	1-7.5	0.10	14.3	0.42	6.4	2.20	9.4	21.1
1-1	6/21/76	7.5-15	0.85	10.0	0.75	7.6	9.00	14.6	24.1
1-2	6/21/76	0-1	0.30	11.0	0.34	5.5	3.25	14.9	3.5
1-2	6/21/76	1-7.5	0.05	10.8	0.32	5.7	1.90	8.8	18.6
1-2	6/21/76	7.5-15	0.30	7.8	0.40	6.4	4.75	13.3	21.9
1-3	6/21/76	0-1	0.55	23.7	0.42	6.8	5.35	12.2	2.7
1-3	6/21/76	1-7.5	0.90	19.8	0.51	7.9	2.35	12.6	17.6
1-3	6/21/76	7.5-15	0.55	15.0	0.69	7.2	6.15	14.6	21.2
2-1	6/22/76	0-1	0.70	25.8	0.55	6.0	5.80	17.1	2.1
2-1	6/22/76	1-7.5	0.20	34.3	0.71	6.0	2.85	17.2	22.8
2-1	6/22/76	7.5-15	0.35	28.4	0.44	6.3	4.15	8.0	23.1
2-2	6/22/76	0-1	0.70	26.5	0.83	5.3	8.85	22.8	2.0
2-2	6/22/76	1-7.5	0.05	34.9	0.37	4.9	3.10	14.8	21.9
2-2	6/22/76	7.5-15	0.10	29.0	0.17	4.9	3.35	5.5	23.0
2-3	6/22/76	0-1	0.75	58.8	0.42	5.7	5.95	20.9	1.9
2-3	6/22/76	1-7.5	0.0	50.5	0.26	5.8	2.10	15.8	21.1
2-3	6/22/76	7.5-15	0.80	25.8	0.32	21.1	4.20	4.8	21.6

SITE	DATE	NH4-N	NO3-N	PO4-P	CL	EXT N	AVL P	H2O
		KG/HA						CM
1-1	6/21/76	1.0	25.0	1.1	13.4	11.2	23.4	4.1
1-2	6/21/76	0.4	17.7	0.7	11.6	6.5	21.6	3.7
1-3	6/21/76	1.3	33.4	1.1	14.2	8.4	25.8	3.5
2-1	6/22/76	0.6	58.7	1.1	11.8	6.9	23.9	4.1
2-2	6/22/76	0.2	59.9	0.6	9.3	6.7	20.1	4.1
2-3	6/22/76	0.8	73.2	0.6	25.6	6.4	20.0	3.9

TABLE F1- 3. FOUR MILE CREEK WATERSHED SOIL CORE NUTRIENT DATA FOR 1976

SITE	DATE	DEPTH CM	NH4-N	NO3-N	PO4-P	CL	EXT N	AVL P	H2O
			SOLUBLE PPM				SOIL PPM		%
2-1	7/27/76	0-1	0.75	57.7	0.40	11.6	5.80	23.0	4.6
2-1	7/27/76	1-7.5	0.50	15.1	0.58	6.8	3.20	14.8	15.9
2-1	7/27/76	7.5-15	0.05	10.8	0.33	5.6	1.30	6.6	17.5
2-1	7/27/76	15-30	0.45	9.9	0.31	6.2	1.70	3.9	19.8
2-2	7/27/76	0-1	0.85	52.9	0.11	6.4	6.20	19.6	4.4
2-2	7/27/76	1-7.5	0.10	8.8	0.48	6.1	3.05	19.3	15.0
2-2	7/27/76	7.5-15	0.05	6.3	0.15	4.8	1.95	6.0	15.6
2-2	7/27/76	15-30	0.10	5.5	0.02	4.4	2.35	8.9	15.4
2-3	7/27/76	0-1	1.10	28.0	0.54	6.8	9.65	26.3	4.2
2-3	7/27/76	1-7.5	0.35	15.5	0.06	8.0	2.25	11.7	13.4
2-3	7/27/76	7.5-15	0.55	14.6	0.56	20.4	2.80	4.0	15.8
2-3	7/27/76	15-30	0.20	11.8	0.15	14.4	3.35	0.0	16.1

SITE	DATE	NH4-N	NO3-N	PO4-P	CL	EXT N	AVL P	H2O
		KG/HA						CM
2-1	7/27/76	1.4	47.2	1.4	23.7	7.7	28.3	6.7
2-2	7/27/76	0.4	28.9	0.6	18.5	9.4	40.4	5.6
2-3	7/27/76	1.3	51.7	0.9	53.6	11.7	16.3	5.6

TABLE F1- 4. FOUR MILE CREEK WATERSHED SOIL CORE NUTRIENT DATA FOR 1976

SITE	DATE	DEPTH CM	NH4-N	NO3-N	PO4-P	CL	EXT N	AVL P	H2O
			------SOLUBLE PPM-----				--SOIL PPM--		%
1-1	7/30/76	0-1	0.20	17.6	1.16	5.3	1.05	26.1	27.4
1-1	7/30/76	1-7.5	0.05	37.2	0.68	7.8	1.25	30.6	24.6
1-1	7/30/76	7.5-15	0.10	25.7	0.07	10.8	2.15	6.1	21.6
1-1	7/30/76	15-30	0.15	12.9	0.01	24.5	2.35	9.4	19.1
1-1	7/30/76	30-45	0.10	8.4	0.02	38.0	1.95	9.8	19.7
1-1	7/30/76	45-60	0.10	5.6	0.09	26.5	1.45	10.7	17.8
1-1	7/30/76	60-90	0.0	2.4	0.26	12.5	1.25	11.2	21.9
1-1	7/30/76	90-120	0.15	0.7	1.18	7.0	0.85	15.5	24.3
1-1	7/30/76	120-150	0.0	0.6	0.70	3.6	0.70	7.4	27.1
1-2	7/30/76	0-1	0.40	13.9	0.26	9.9	3.70	9.1	27.3
1-2	7/30/76	1-7.5	0.20	15.6	0.24	6.1	3.20	6.3	24.4
1-2	7/30/76	7.5-15	0.35	3.7	0.24	6.5	3.75	3.1	20.3
1-2	7/30/76	15-30	0.20	2.0	0.12	5.7	3.60	3.5	19.3
1-2	7/30/76	30-45	0.30	1.4	0.18	7.8	2.05	2.2	20.4
1-2	7/30/76	45-60	0.15	1.7	0.22	8.7	3.25	0.4	20.8
1-2	7/30/76	60-90	0.15	1.7	0.16	7.0	3.65	0.1	22.2
1-2	7/30/76	90-120	0.20	1.0	0.13	5.3	1.25	0.0	26.3
1-2	7/30/76	120-150	0.05	1.1	0.15	4.9	0.75	1.1	30.0
1-3	7/30/76	0-1	0.30	17.8	0.15	4.4	3.35	6.4	25.1
1-3	7/30/76	1-7.5	0.15	27.6	0.13	4.9	1.70	3.7	24.5
1-3	7/30/76	7.5-15	0.45	8.8	0.19	5.7	2.30	2.9	20.9
1-3	7/30/76	15-30	0.20	3.6	0.13	5.3	2.60	1.5	20.2
1-3	7/30/76	30-45	0.25	2.1	0.10	4.9	2.55	2.2	20.2
1-3	7/30/76	45-60	0.05	2.2	0.08	5.3	2.35	8.1	20.4
1-3	7/30/76	60-90	0.05	1.9	0.14	7.4	1.85	30.2	19.3
1-3	7/30/76	90-120	0.0	1.2	0.39	7.4	0.75	32.3	26.1
1-3	7/30/76	120-150	0.0	0.7	0.88	7.0	0.45	24.4	29.5
1-4	7/30/76	0-1	0.30	16.3	0.24	4.5	4.95	8.0	22.2
1-4	7/30/76	1-7.5	0.25	25.9	0.24	5.7	3.40	6.4	23.9
1-4	7/30/76	7.5-15	0.30	11.5	0.25	7.4	3.60	2.9	19.3
1-4	7/30/76	15-30	0.15	2.3	0.18	7.4	3.25	1.3	17.9
1-4	7/30/76	30-45	0.05	1.9	0.07	6.5	2.65	1.7	20.2
1-4	7/30/76	45-60	0.0	1.7	0.10	7.0	2.40	11.5	19.9
1-4	7/30/76	60-90	0.05	1.3	0.24	7.4	1.95	33.0	21.5
1-4	7/30/76	90-120	0.0	1.0	0.43	6.5	1.30	29.7	25.5
1-4	7/30/76	120-150	0.05	0.6	0.85	7.0	0.60	24.9	28.7
1-5	7/30/76	0-1	0.45	21.1	0.52	4.7	4.90	13.6	22.1
1-5	7/30/76	1-7.5	0.20	27.9	0.26	6.1	2.10	7.1	23.8
1-5	7/30/76	7.5-15	0.25	7.7	0.31	7.4	3.35	9.6	18.5
1-5	7/30/76	15-30	0.15	1.4	0.16	12.2	3.20	2.1	17.4
1-5	7/30/76	30-45	0.10	1.3	0.20	14.9	2.70	2.0	17.8
1-5	7/30/76	45-60	0.10	1.4	0.13	14.1	2.15	4.8	20.6
1-5	7/30/76	60-90	0.0	0.8	0.25	8.0	1.60	26.0	20.7
1-5	7/30/76	90-120	0.20	0.2	0.34	4.9	0.90	34.4	26.3
1-5	7/30/76	120-150	0.15	0.0	0.56	4.9	0.40	27.8	29.8
1-6	7/30/76	0-1	0.50	11.3	0.31	4.5	3.25	11.5	24.3
1-6	7/30/76	1-7.5	0.25	7.8	0.28	7.0	1.75	1.0	24.2
1-6	7/30/76	7.5-15	0.25	2.0	0.22	5.7	2.00	6.4	19.6
1-6	7/30/76	15-30	0.15	0.6	0.19	9.1	1.80	10.5	19.7
1-6	7/30/76	30-45	0.15	0.2	0.19	6.1	1.75	8.4	20.1
1-6	7/30/76	45-60	0.15	0.0	0.27	6.1	1.30	7.4	21.6
1-6	7/30/76	60-90	0.10	0.0	0.59	7.0	0.40	6.3	20.8
1-6	7/30/76	90-120	0.0	0.0	0.16	3.2	0.10	1.9	26.3
1-6	7/30/76	120-150	0.0	0.0	0.15	4.1	0.10	2.6	27.2
1-7	7/30/76	0-1	0.20	15.3	0.24	3.7	1.85	11.3	24.3
1-7	7/30/76	1-7.5	0.15	15.3	0.46	4.9	1.30	14.5	22.7
1-7	7/30/76	7.5-15	0.15	0.5	0.19	4.5	2.75	2.4	20.7
1-7	7/30/76	15-30	0.10	0.8	0.11	6.5	2.80	5.0	19.1
1-7	7/30/76	30-45	0.05	0.6	0.11	4.1	2.65	12.3	19.0
1-7	7/30/76	45-60	0.05	0.6	0.16	4.8	1.80	22.6	19.6
1-7	7/30/76	60-90	0.10	0.5	0.25	5.7	1.00	26.7	22.2
1-7	7/30/76	90-120	0.05	0.1	0.56	5.7	0.35	19.5	26.2
1-7	7/30/76	120-150	0.25	0.0	1.12	4.9	0.25	16.3	23.3
1-8	7/30/76	0-1	0.15	15.9	0.31	4.5	1.70	12.6	28.0
1-8	7/30/76	1-7.5	0.25	19.2	0.31	6.5	0.90	10.4	25.2
1-8	7/30/76	7.5-15	0.20	13.4	0.38	7.8	1.40	10.9	23.3
1-8	7/30/76	15-30	0.35	8.3	0.28	8.7	2.05	6.2	20.3
1-8	7/30/76	30-45	0.45	8.9	0.39	13.0	1.75	3.7	25.8
1-8	7/30/76	45-60	0.65	6.5	0.34	10.4	0.75	3.1	26.7
1-8	7/30/76	60-90	0.60	3.3	0.44	11.7	0.50	1.0	29.7
1-8	7/30/76	90-120	0.55	2.0	0.56	7.8	0.35	1.9	30.6
1-8	7/30/76	120-150	0.50	1.3	0.72	8.7	0.45	2.7	29.3

TABLE F1- 4. CONTINUED

SITE	DATE	DEPTH CM	NH4-N	NO3-N	PO4-P	CL	EXT N	AVL P	H2O
			------SOLUBLE PPM-----				--SOIL PPM--		%
2-1	7/13/76	1-7.5	0.30	14.1	0.27	6.8	1.00	12.1	16.2
2-1	7/13/76	7.5-15	0.35	9.6	0.22	5.6	0.85	6.3	17.9
2-1	7/13/76	15-30	0.40	11.3	0.15	5.6	1.70	1.0	20.4
2-1	7/13/76	30-45	0.55	9.6	0.27	7.6	2.95	2.3	20.9
2-1	7/13/76	45-60	0.55	9.9	0.30	9.7	2.75	1.1	22.8
2-1	7/13/76	60-90	0.40	8.5	0.28	8.4	1.85	0.5	24.3
2-1	7/13/76	90-120	0.35	5.4	0.23	7.2	1.65	1.7	27.2
2-1	7/13/76	120-150	0.35	5.9	0.17	11.8	1.55	2.3	31.5
2-2	7/13/76	1-7.5	0.40	5.9	0.13	4.8	0.85	4.3	17.0
2-2	7/13/76	7.5-15	0.25	11.6	0.13	4.1	1.55	9.7	18.3
2-2	7/13/76	15-30	0.30	6.0	0.10	4.5	1.85	15.2	18.2
2-2	7/13/76	30-45	0.25	5.6	0.08	5.6	1.60	17.9	20.4
2-2	7/13/76	45-60	0.20	5.3	0.08	6.3	1.05	18.8	21.8
2-2	7/13/76	60-90	0.20	4.1	0.15	5.6	0.75	18.3	23.4
2-2	7/13/76	90-120	0.20	2.3	0.38	5.6	0.60	17.8	26.7
2-2	7/13/76	120-150	0.20	1.8	1.20	5.6	0.60	18.8	29.0
2-3	7/13/76	1-7.5	0.25	24.4	0.22	6.0	0.80	8.9	19.4
2-3	7/13/76	7.5-15	0.35	13.9	0.19	7.2	0.70	1.5	19.9
2-3	7/13/76	15-30	0.35	9.9	0.26	8.8	1.40	0.3	20.5
2-3	7/13/76	30-45	0.30	7.9	0.20	8.8	1.55	0.0	20.3
2-3	7/13/76	45-60	0.30	3.8	0.16	6.0	2.00	0.0	26.2
2-3	7/13/76	60-90	0.35	2.0	0.11	6.8	1.30	0.0	30.6
2-3	7/13/76	90-120	0.20	1.8	0.08	4.5	0.60	1.6	27.4
2-3	7/13/76	120-150	0.15	1.8	0.04	3.8	0.65	0.9	27.1
2-4	7/13/76	1-7.5	0.35	12.2	0.29	7.1	0.90	12.1	15.1
2-4	7/13/76	7.5-15	0.35	8.0	0.16	4.7	1.90	4.0	17.8
2-4	7/13/76	15-30	0.25	3.8	0.09	5.4	2.45	3.5	17.8
2-4	7/13/76	30-45	0.25	3.5	0.09	4.5	2.25	17.5	17.6
2-4	7/13/76	45-60	0.25	3.8	0.08	4.6	1.85	27.0	19.2
2-4	7/13/76	60-90	0.20	2.6	0.10	4.5	1.05	29.6	23.1
2-4	7/13/76	90-120	0.15	1.3	0.21	6.4	0.70	19.0	27.4
2-4	7/13/76	120-150	0.15	0.8	0.88	8.4	0.65	17.2	28.8
2-5	7/13/76	1-7.5	0.25	12.2	0.49	5.6	0.85	18.8	17.0
2-5	7/13/76	7.5-15	0.15	25.1	0.14	6.4	1.40	8.8	16.5
2-5	7/13/76	15-30	0.15	26.8	0.02	10.7	2.75	4.9	17.8
2-5	7/13/76	30-45	0.15	14.3	0.0	12.0	3.15	8.9	19.0
2-5	7/13/76	45-60	0.15	8.6	0.02	7.0	2.50	23.2	22.9
2-5	7/13/76	60-90	0.15	6.4	0.06	6.1	1.70	27.5	24.4
2-5	7/13/76	90-120	0.20	3.8	0.08	5.3	1.00	24.5	27.4
2-5	7/13/76	120-150	0.15	0.0	0.27	6.0	0.60	20.1	28.6
2-6	7/13/76	1-7.5	0.20	21.2	0.12	5.8	1.05	6.0	15.3
2-6	7/13/76	7.5-15	0.20	10.0	0.17	7.4	1.55	3.1	16.6
2-6	7/13/76	15-30	0.15	5.4	0.08	8.9	2.10	2.9	16.5
2-6	7/13/76	30-45	0.15	5.2	0.03	6.8	2.30	5.7	17.3
2-6	7/13/76	45-60	0.15	4.5	0.06	4.2	2.45	23.4	19.5
2-6	7/13/76	60-90	0.25	4.4	0.10	4.5	1.45	33.1	22.6
2-6	7/13/76	90-120	0.20	3.2	0.15	4.1	0.90	33.6	27.2
2-6	7/13/76	120-150	0.25	1.8	0.39	5.6	0.75	26.7	29.4
2-7	7/13/76	1-7.5	0.30	22.5	0.07	4.5	0.70	8.1	19.1
2-7	7/13/76	7.5-15	0.30	22.0	0.14	4.7	0.70	4.2	21.0
2-7	7/13/76	15-30	0.55	29.7	0.27	6.0	0.95	3.7	28.5
2-7	7/13/76	30-45	1.05	16.5	0.39	19.1	1.40	3.2	24.7
2-7	7/13/76	45-60	0.90	11.3	0.24	12.2	0.90	3.1	27.7
2-7	7/13/76	60-90	0.70	5.8	0.25	8.8	0.80	2.5	28.9
2-7	7/13/76	90-120	0.55	2.3	0.26	7.6	0.90	4.4	30.9
2-7	7/13/76	120-150	0.60	2.2	0.61	10.5	0.80	7.3	29.8
2-8	7/13/76	1-7.5	0.35	9.0	0.31	4.6	0.85	6.7	16.4
2-8	7/13/76	7.5-15	0.35	5.9	0.17	4.1	2.60	12.2	16.9
2-8	7/13/76	15-30	0.35	4.8	0.14	5.2	2.85	15.0	17.3
2-8	7/13/76	30-45	0.40	4.3	0.16	4.9	3.20	15.9	19.8
2-8	7/13/76	45-60	0.40	3.9	0.14	5.6	2.70	15.1	22.9
2-8	7/13/76	60-90	0.25	2.8	0.18	7.5	1.15	13.1	26.3
2-8	7/13/76	90-120	0.25	0.9	0.78	4.2	0.70	15.7	28.9
2-8	7/13/76	120-150	0.25	1.4	0.32	6.0	0.65	12.5	27.9

TABLE F1- 4. CONCLUDED

SITE	DATE	DEPTH CM	NH4-N	NO3-N	PO4-P	CL	EXT N	AVL P	H2O
			------SOLUBLE PPM-----				--SOIL PPM--		%
3-1	8/ 2/76	0-1	5.10	143.5	2.66	43.7	14.30	31.2	12.1
3-1	8/ 2/76	1-7.5	0.45	80.1	0.59	104.9	4.05	5.6	12.6
3-1	8/ 2/76	7.5-15	1.10	25.9	0.68	10.1	9.15	4.2	11.5
3-1	8/ 2/76	15-30	0.50	2.1	0.25	5.6	4.75	2.5	11.5
3-1	8/ 2/76	30-45	0.30	1.3	0.20	4.9	3.50	1.6	13.4
3-1	8/ 2/76	45-60	0.35	1.4	0.06	5.2	11.40	10.0	17.1
3-1	8/ 2/76	60-90	0.25	0.5	0.06	5.0	1.10	23.8	18.7
3-1	8/ 2/76	90-120	0.30	1.4	0.24	7.2	2.55	27.0	22.2
3-1	8/ 2/76	120-150	0.25	0.5	0.37	9.8	1.50	23.3	25.9
3-2	8/ 2/76	0-1	1.75	24.0	2.65	30.1	6.65	25.9	12.2
3-2	8/ 2/76	1-7.5	0.80	18.6	0.43	12.5	4.80	5.3	12.7
3-2	8/ 2/76	7.5-15	0.65	8.0	0.29	7.9	2.00	3.7	12.2
3-2	8/ 2/76	15-30	0.60	2.0	0.16	6.3	3.80	2.8	11.8
3-2	8/ 2/76	30-45	0.45	1.4	0.06	5.6	3.50	4.1	12.6
3-2	8/ 2/76	45-60	0.30	0.7	0.06	4.6	2.65	3.9	14.7
3-2	8/ 2/76	60-90	0.30	0.5	0.14	5.5	1.30	28.2	16.5
3-2	8/ 2/76	90-120	0.30	0.3	0.25	8.8	0.65	27.1	22.0
3-2	8/ 2/76	120-150	0.40	0.2	0.46	8.3	0.55	19.9	25.6
3-3	8/ 2/76	0-1	1.80	5.4	4.60	24.3	9.40	42.7	10.7
3-3	8/ 2/76	1-7.5	0.70	11.7	0.82	10.4	3.15	21.0	15.7
3-3	8/ 2/76	7.5-15	0.50	2.6	0.50	8.8	2.75	16.5	12.7
3-3	8/ 2/76	15-30	0.30	0.6	0.51	6.3	1.75	24.1	11.8
3-3	8/ 2/76	30-45	0.30	0.5	0.58	5.5	1.15	27.4	13.0
3-3	8/ 2/76	45-60	0.25	0.5	0.73	5.5	0.95	25.2	16.8
3-3	8/ 2/76	60-90	0.30	0.2	1.06	6.7	0.80	21.7	21.6
3-3	8/ 2/76	90-120	0.35	0.2	1.33	6.7	0.60	16.6	23.2
3-3	8/ 2/76	120-150	0.10	0.2	1.60	4.3	0.65	15.0	22.9
3-4	8/ 2/76	0-1	0.85	39.6	1.28	32.0	3.25	15.2	15.9
3-4	8/ 2/76	1-7.5	0.40	15.6	0.0	11.3	0.75	3.5	16.9
3-4	8/ 2/76	7.5-15	0.30	10.9	0.29	5.9	1.60	3.8	15.5
3-4	8/ 2/76	15-30	0.45	10.0	0.41	9.5	0.55	4.1	21.0
3-4	8/ 2/76	30-45	0.55	9.8	0.31	9.5	0.50	4.1	21.2
3-4	8/ 2/76	45-60	0.55	6.3	0.35	8.3	0.55	3.2	22.4
3-4	8/ 2/76	60-90	0.50	4.2	0.26	7.1	0.35	3.3	26.1
3-4	8/ 2/76	90-120	0.35	2.2	0.32	6.3	0.80	4.2	28.8
3-4	8/ 2/76	120-150	0.55	1.3	0.29	7.1	0.90	4.0	31.5
3-5	8/ 2/76	0-1	1.10	14.8	1.39	16.5	9.70	22.5	10.9
3-5	8/ 2/76	1-7.5	0.40	4.0	0.25	7.1	1.75	6.1	12.1
3-5	8/ 2/76	7.5-15	0.45	1.3	0.21	7.9	4.85	8.8	10.9
3-5	8/ 2/76	15-30	0.30	1.3	0.13	5.5	1.00	10.7	11.2
3-5	8/ 2/76	30-45	0.35	0.9	0.14	4.8	1.20	13.5	13.0
3-5	8/ 2/76	45-60	0.30	0.6	0.30	4.8	1.20	18.0	17.2
3-5	8/ 2/76	60-90	0.25	0.4	0.61	5.2	0.90	19.7	20.2
3-5	8/ 2/76	90-120	0.25	0.3	1.09	5.2	0.45	19.1	23.4
3-5	8/ 2/76	120-150	0.40	0.4	2.08	5.2	0.35	20.7	25.1

SITE	DATE	NH4-N	NO3-N	PO4-P	CL	EXT N	AVL P	H2O
		----------KG/HA----------						CM
1-1	7/30/76	1.4	123.2	9.7	275.7	25.1	226.4	44.4
1-2	7/30/76	3.3	43.1	3.3	123.2	45.6	25.8	47.1
1-3	7/30/76	1.7	63.5	6.7	126.7	30.0	376.9	45.8
1-4	7/30/76	1.3	57.6	7.3	135.4	37.6	387.1	45.3
1-5	7/30/76	2.5	44.8	6.2	161.1	31.9	387.2	45.3
1-6	7/30/76	1.7	11.2	5.3	108.9	15.1	100.3	45.5
1-7	7/30/76	2.3	21.4	9.2	103.6	23.7	340.3	43.7
1-8	7/30/76	9.7	101.2	9.5	186.6	15.9	67.7	57.4
2-1	7/13/76	7.8	158.1	4.5	165.0	35.7	42.7	48.4
2-2	7/13/76	4.4	80.8	7.8	106.8	18.4	330.2	46.2
2-3	7/13/76	5.1	96.7	2.5	116.9	20.7	19.9	50.1
2-4	7/13/76	4.0	58.0	5.8	115.9	24.4	366.4	45.0
2-5	7/13/76	3.2	167.2	2.4	136.4	30.8	381.5	46.4
2-6	7/13/76	4.0	93.4	3.2	106.4	27.5	441.9	44.7
2-7	7/13/76	12.6	188.0	6.4	186.8	17.3	87.0	54.6
2-8	7/13/76	5.8	58.1	6.3	108.6	29.5	268.9	47.2
3-1	8/ 2/76	7.4	129.8	5.2	222.3	71.5	336.6	37.0
3-2	8/ 2/76	8.1	38.6	5.0	144.2	35.3	332.1	35.5
3-3	8/ 2/76	5.9	19.2	21.3	124.2	21.9	394.9	37.6
3-4	8/ 2/76	9.2	108.3	6.0	153.3	13.8	75.8	49.9
3-5	8/ 2/76	6.3	16.8	17.0	106.6	20.5	334.1	37.5

TABLE F1- 5. FOUR MILE CREEK WATERSHED SOIL CORE NUTRIENT DATA FOR 1976

SITE	DATE	DEPTH CM	NH4-N	NO3-N	PO4-P	CL	EXT N	AVL P	H2O
			------SOLUBLE PPM-----				--SOIL PPM--		%
1-1	8/31/76	0-1	0.0	13.0	0.76	0.0	3.75	13.1	3.2
1-1	8/31/76	1-7.5	0.10	12.1	0.80	6.4	1.20	7.9	12.3
1-2	8/31/76	0-1	0.0	12.2	0.55	0.0	2.80	10.1	3.0
1-2	8/31/76	1-7.5	0.05	5.5	0.64	7.2	2.75	8.0	13.5
1-3	8/31/76	0-1	0.0	27.2	0.62	0.0	4.95	17.5	1.9
1-3	8/31/76	1-7.5	0.15	20.1	0.58	14.5	3.35	11.1	10.7
2-1	8/31/76	0-1	0.70	83.7	0.38	23.5	5.80	17.9	3.2
2-1	8/31/76	1-7.5	0.0	12.9	0.64	7.2	2.85	8.8	14.0
2-2	8/31/76	0-1	0.0	57.6	0.36	6.4	5.20	13.4	3.3
2-2	8/31/76	1-7.5	0.60	12.2	0.24	20.3	3.25	9.5	13.7
2-3	8/31/76	0-1	0.60	64.8	0.54	12.8	5.60	19.9	3.0
2-3	8/31/76	1-7.5	0.05	12.1	0.56	8.0	4.50	11.0	12.6

SITE	DATE	NH4-N	NO3-N	PO4-P	CL	EXT N	AVL P	H2O
		----------KG/HA----------						CM
1-1	8/31/76	0.1	11.6	0.8	5.5	1.4	8.0	1.1
1-2	8/31/76	0.0	5.9	0.6	6.1	2.6	7.8	1.2
1-3	8/31/76	0.1	19.7	0.6	12.3	3.3	11.2	0.9
2-1	8/31/76	0.1	19.3	0.6	8.4	3.0	9.3	1.2
2-2	8/31/76	0.5	16.1	0.2	17.8	3.3	6.0	1.2
2-3	8/31/76	0.1	16.7	0.5	8.0	4.4	11.3	1.1

TABLE F1- 6. FOUR MILE CREEK WATERSHED SOIL CORE NUTRIENT DATA FOR 1976

SITE	DATE	DEPTH CM	NH4-N	NO3-N	PO4-P	CL	EXT N	AVL P	H2O
			------SOLUBLE PPM-----				--SOIL PPM--		%
1-1	11/23/76	0-1	0.25	2.7	0.40	7.4	2.20	12.8	7.5
1-1	11/23/76	1-7.5	0.10	7.2	0.31	7.5	1.05	8.6	17.8
1-1	11/23/76	7.5-15	0.10	4.4	0.0	6.6	1.15	7.0	19.7
1-1	11/23/76	15-30	0.10	2.1	0.10	7.6	1.30	9.1	18.2
1-1	11/23/76	30-45	0.10	0.7	0.13	10.3	1.25	11.1	10.5
1-1	11/23/76	45-60	0.10	0.5	0.18	15.9	1.05	12.1	14.3
1-1	11/23/76	60-90	0.10	0.4	0.35	9.6	0.85	13.2	18.3
1-1	11/23/76	90-120	0.10	0.6	0.69	5.9	0.75	9.0	24.3
1-1	11/23/76	120-150	0.05	0.4	0.18	2.6	0.55	1.2	22.7
1-2	11/23/76	0-1	0.90	13.3	0.32	3.9	11.40	12.1	6.2
1-2	11/23/76	1-7.5	0.25	17.5	0.19	4.3	1.35	7.2	19.9
1-2	11/23/76	7.5-15	0.25	14.9	0.30	4.3	1.50	10.9	23.4
1-2	11/23/76	15-30	0.35	4.8	0.28	5.7	1.65	2.7	23.4
1-2	11/23/76	30-45	0.30	3.1	0.33	6.9	1.60	1.6	18.7
1-2	11/23/76	45-60	0.25	2.2	0.22	6.9	1.70	0.8	17.6
1-2	11/23/76	60-90	0.25	1.5	0.21	8.4	1.35	0.5	17.9
1-2	11/23/76	90-120	0.20	1.1	0.18	5.0	0.90	1.2	21.7
1-2	11/23/76	120-150	0.15	1.0	0.26	5.0	0.65	3.0	25.4
1-3	11/23/76	0-1	0.50	4.8	0.15	4.0	5.50	8.0	6.2
1-3	11/23/76	1-7.5	0.20	14.7	0.20	5.7	0.90	5.8	19.2
1-3	11/23/76	7.5-15	0.15	14.2	0.18	4.6	1.10	1.3	19.2
1-3	11/23/76	15-30	0.15	3.0	0.10	4.3	1.70	2.5	17.6
1-3	11/23/76	30-45	0.10	1.5	0.09	4.1	1.50	10.5	16.2
1-3	11/23/76	45-60	0.10	0.9	0.18	5.4	1.30	27.8	15.9
1-3	11/23/76	60-90	0.05	0.6	0.28	5.1	1.15	34.6	16.6
1-3	11/23/76	90-120	0.10	0.5	0.48	3.9	1.00	31.0	17.3
1-3	11/23/76	120-150	0.10	0.4	0.69	3.6	0.70	22.1	22.1
1-4	11/23/76	0-1	0.90	17.4	0.27	3.8	11.50	15.9	5.1
1-4	11/23/76	1-7.5	0.15	30.9	0.16	3.9	1.40	7.5	19.4
1-4	11/23/76	7.5-15	0.35	21.2	0.71	6.9	2.60	17.5	17.4
1-4	11/23/76	15-30	0.10	5.8	0.09	5.7	1.45	3.0	16.4
1-4	11/23/76	30-45	0.05	4.2	0.03	8.5	1.60	3.8	17.0
1-4	11/23/76	45-60	0.05	2.1	0.07	11.1	1.35	25.3	17.9
1-4	11/23/76	60-90	0.05	1.2	0.19	9.2	1.20	37.2	17.4
1-4	11/23/76	90-120	0.05	0.7	0.33	5.8	1.00	33.1	18.3
1-4	11/23/76	120-150	0.10	0.7	0.51	5.8	0.80	28.3	19.7
1-5	11/23/76	0-1	0.55	5.2	0.21	3.9	5.00	14.9	6.1
1-5	11/23/76	1-7.5	0.15	9.4	0.19	4.6	0.90	13.0	19.4
1-5	11/23/76	7.5-15	0.25	9.2	0.29	5.7	1.50	10.4	20.4
1-5	11/23/76	15-30	0.15	3.0	0.13	6.2	1.70	2.0	18.2
1-5	11/23/76	30-45	0.10	1.9	0.05	12.4	1.95	5.2	18.1
1-5	11/23/76	45-60	0.10	1.1	0.07	18.1	1.60	20.5	17.6
1-5	11/23/76	60-90	0.10	0.6	0.18	12.9	1.40	33.0	17.0
1-5	11/23/76	90-120	0.10	0.5	0.38	6.5	0.90	30.7	18.3
1-5	11/23/76	120-150	0.15	0.4	0.67	5.4	0.60	23.4	22.8
1-6	11/23/76	0-1	0.25	5.6	0.14	4.6	2.20	8.5	8.4
1-6	11/23/76	1-7.5	0.20	6.4	0.20	5.7	1.05	6.4	21.8
1-6	11/23/76	7.5-15	0.20	4.2	0.38	5.0	1.50	12.9	23.3
1-6	11/23/76	15-30	0.05	1.1	0.15	3.9	1.35	9.5	18.5
1-6	11/23/76	30-45	0.0	0.7	0.14	5.2	1.10	8.5	20.3
1-6	11/23/76	45-60	0.05	0.4	0.19	8.4	0.90	3.9	19.8
1-6	11/23/76	60-90	0.05	0.4	0.36	6.8	0.70	4.9	22.3
1-6	11/23/76	90-120	0.0	0.4	0.09	2.4	0.65	1.8	18.6
1-6	11/23/76	120-150	0.0	0.7	0.07	2.1	0.65	1.7	34.8
1-7	11/23/76	0-1	0.45	6.5	0.29	6.6	4.10	13.9	6.6
1-7	11/23/76	1-7.5	0.10	15.0	0.25	6.1	0.95	10.3	21.9
1-7	11/23/76	7.5-15	0.15	11.7	0.24	15.3	2.25	4.9	22.5
1-7	11/23/76	15-30	0.10	3.2	0.18	4.6	3.00	2.6	20.8
1-7	11/23/76	30-45	0.05	1.8	0.10	3.8	2.20	3.0	19.0
1-7	11/23/76	45-60	0.0	1.3	0.14	4.4	1.90	8.6	18.6
1-7	11/23/76	60-90	0.10	0.6	0.45	5.7	0.50	10.3	20.2
1-7	11/23/76	90-120	0.0	1.0	0.19	7.7	1.35	14.5	20.0
1-7	11/23/76	120-150	0.05	0.6	0.27	8.8	0.70	16.9	20.1
1-8	11/23/76	0-1	0.70	13.2	0.57	8.0	4.50	20.5	6.6
1-8	11/23/76	1-7.5	0.15	20.0	0.58	8.8	1.45	21.6	20.9
1-8	11/23/76	7.5-15	0.20	16.0	0.49	6.9	1.60	3.3	21.3
1-8	11/23/76	15-30	0.20	6.0	0.24	8.0	1.50	1.5	19.8
1-8	11/23/76	30-45	0.25	3.9	0.28	11.6	1.05	2.3	19.8
1-8	11/23/76	45-60	0.75	3.8	0.45	14.9	1.00	2.9	22.2
1-8	11/23/76	60-90	0.70	1.9	0.40	11.1	0.85	2.9	20.7
1-8	11/23/76	90-120	0.50	1.1	0.38	11.4	0.65	5.4	21.1
1-8	11/23/76	120-150	0.45	1.0	0.49	10.0	0.55	8.7	23.2

TABLE F1- 6. CONTINUED

SITE	DATE	DEPTH CM	NH4-N	NO3-N	PO4-P	CL	EXT N	AVL P	H2O
			------SOLUBLE PPM-----				--SOIL PPM--		%
2-1	11/23/76	0-1	0.80	66.0	0.44	11.0	4.35	31.0	8.7
2-1	11/23/76	1-7.5	0.50	32.6	0.41	7.5	1.15	20.2	22.7
2-1	11/23/76	7.5-15	0.65	18.7	0.39	4.9	0.85	12.6	21.6
2-1	11/23/76	15-30	0.75	21.4	0.40	4.5	0.95	15.8	21.2
2-1	11/23/76	30-45	0.65	17.3	0.18	4.2	0.90	11.1	19.8
2-1	11/23/76	45-60	0.75	15.1	0.15	4.5	1.40	10.2	18.8
2-1	11/23/76	60-90	0.95	13.0	0.27	5.3	2.15	5.9	23.8
2-1	11/23/76	90-120	1.70	9.0	0.49	12.1	1.65	7.2	25.0
2-1	11/23/76	120-150	1.00	3.1	0.49	8.4	0.85	12.1	26.0
2-2	11/23/76	0-1	0.30	15.0	0.33	16.8	2.30	12.1	7.5
2-2	11/23/76	1-7.5	0.15	15.5	0.24	13.6	0.85	6.1	21.0
2-2	11/23/76	7.5-15	0.15	3.1	0.21	5.2	1.35	1.6	21.4
2-2	11/23/76	15-30	0.50	1.2	0.15	3.7	1.00	3.7	20.7
2-2	11/23/76	30-45	0.50	0.7	0.07	3.0	0.95	18.2	17.4
2-2	11/23/76	45-60	0.10	0.4	0.17	3.7	0.70	26.9	16.6
2-2	11/23/76	60-90	0.05	0.4	0.21	3.9	0.45	25.9	14.6
2-2	11/23/76	90-120	0.05	0.4	0.38	3.3	0.25	19.4	16.9
2-2	11/23/76	120-150	0.25	0.4	0.76	3.0	0.20	19.1	20.8
2-3	11/23/76	0-1	0.35	30.4	0.49	32.2	2.85	18.2	8.6
2-3	11/23/76	1-7.5	0.15	28.6	0.33	12.7	0.75	12.2	24.2
2-3	11/23/76	7.5-15	0.25	16.7	0.30	7.2	0.75	2.2	24.4
2-3	11/23/76	15-30	0.40	4.5	0.36	8.8	0.70	1.0	20.3
2-3	11/23/76	30-45	0.30	2.5	0.33	7.9	0.85	0.4	19.2
2-3	11/23/76	45-60	0.30	1.7	0.24	6.4	0.85	0.1	20.5
2-3	11/23/76	60-90	0.30	1.6	0.02	7.2	2.20	0.1	23.5
2-3	11/23/76	90-120	0.15	0.4	0.23	3.7	0.35	0.7	27.4
2-3	11/23/76	120-150	0.0	1.0	0.07	2.2	0.40	1.5	28.7
2-4	11/23/76	0-1	0.65	24.0	0.67	33.1	4.40	32.3	8.3
2-4	11/23/76	1-7.5	0.35	16.3	0.39	27.2	1.35	16.7	19.2
2-4	11/23/76	7.5-15	0.30	5.5	0.15	5.3	1.50	3.9	18.8
2-4	11/23/76	15-30	0.25	6.3	0.11	5.8	2.05	2.5	18.5
2-4	11/23/76	30-45	0.30	3.8	0.07	6.5	1.85	5.2	17.3
2-4	11/23/76	45-60	0.40	1.9	0.0	11.3	1.60	7.7	16.9
2-4	11/23/76	60-90	0.30	0.7	0.09	4.5	1.00	5.7	17.3
2-4	11/23/76	90-120	0.25	0.1	0.16	4.0	0.40	2.1	25.1
2-4	11/23/76	120-150	0.15	0.0	0.07	4.3	0.35	2.1	25.7

SITE	DATE	DEPTH CM	NH4-N	NO3-N	PO4-P	CL	EXT N	AVL P	H2O
			------SOLUBLE PPM-----				--SOIL PPM--		%
2-5	11/23/76	0-1	0.30	23.6	1.19	20.9	3.20	33.1	7.2
2-5	11/23/76	1-7.5	0.20	32.4	0.76	14.6	1.40	26.1	20.7
2-5	11/23/76	7.5-15	0.15	30.9	0.21	5.4	0.85	8.5	18.3
2-5	11/23/76	15-30	0.15	22.2	0.11	7.9	1.30	1.1	17.4
2-5	11/23/76	30-45	0.10	6.4	0.10	6.6	1.05	2.4	17.0
2-5	11/23/76	45-60	0.05	6.3	0.15	3.5	1.00	7.6	17.5
2-5	11/23/76	60-90	0.15	2.5	0.07	4.8	0.90	18.6	17.3
2-5	11/23/76	90-120	0.05	1.3	0.23	4.0	0.50	24.1	19.5
2-5	11/23/76	120-150	0.10	0.6	0.35	4.4	0.30	20.6	20.1
2-6	11/23/76	0-1	0.60	26.9	0.26	17.1	4.40	20.5	7.7
2-6	11/23/76	1-7.5	0.40	5.7	0.29	7.5	1.25	18.1	21.3
2-6	11/23/76	7.5-15	0.40	3.9	0.21	5.8	1.40	2.1	21.6
2-6	11/23/76	15-30	0.05	0.8	0.10	4.0	1.70	11.4	19.3
2-6	11/23/76	30-45	0.0	0.2	0.10	3.2	1.55	19.9	17.4
2-6	11/23/76	45-60	0.05	0.1	0.15	3.2	0.95	22.6	17.1
2-6	11/23/76	60-90	0.05	0.0	0.25	3.6	0.45	17.2	18.7
2-6	11/23/76	90-120	0.15	0.0	0.52	3.6	0.45	16.0	18.2
2-6	11/23/76	120-150	0.20	0.0	0.67	3.6	0.30	14.1	21.5
2-7	11/23/76	0-1	0.45	9.5	0.36	19.0	3.10	23.3	8.6
2-7	11/23/76	1-7.5	0.30	6.5	0.39	12.1	1.10	17.8	21.8
2-7	11/23/76	7.5-15	0.30	4.1	0.26	6.6	0.85	8.8	22.8
2-7	11/23/76	15-30	0.30	1.4	0.15	5.3	2.00	5.4	25.1
2-7	11/23/76	30-45	0.05	0.4	0.12	4.9	1.75	10.2	22.2
2-7	11/23/76	45-60	0.05	0.2	0.13	5.8	1.45	9.9	22.9
2-7	11/23/76	60-90	0.05	0.1	0.21	4.5	0.85	9.2	24.3
2-7	11/23/76	90-120	0.15	0.2	0.51	4.9	0.50	8.4	25.1
2-7	11/23/76	120-150	0.10	0.1	0.19	3.2	0.20	4.7	28.4
2-8	11/23/76	0-1	0.80	31.0	0.76	15.1	10.60	34.6	6.0
2-8	11/23/76	1-7.5	0.15	43.7	0.67	11.1	1.15	30.0	19.8
2-8	11/23/76	7.5-15	0.25	10.9	0.16	4.5	0.60	3.0	17.6
2-8	11/23/76	15-30	0.35	2.4	0.18	5.3	1.70	3.3	16.9
2-8	11/23/76	30-45	0.30	1.9	0.13	4.5	2.10	3.3	16.1
2-8	11/23/76	45-60	0.10	0.6	0.07	4.9	2.05	5.0	16.8
2-8	11/23/76	60-90	0.0	0.2	0.14	4.0	1.80	31.3	17.8
2-8	11/23/76	90-120	0.0	0.5	0.29	4.0	1.25	37.1	17.6
2-8	11/23/76	120-150	0.0	0.2	0.61	6.3	0.80	32.1	19.2

TABLE F1- 6. CONCLUDED

SITE	DATE	DEPTH CM	NH4-N	NO3-N	PO4-P	CL	EXT N	AVL P	H2O
			------SOLUBLE PPM-----				--SOIL PPM--		%
3-1	11/23/76	0-1	1.05	10.6	3.19	15.9	4.80	1.6	9.5
3-1	11/23/76	1-7.5	0.60	4.2	0.45	22.2	2.10	2.2	17.3
3-1	11/23/76	7.5-15	0.65	1.2	0.10	8.0	1.95	1.9	14.4
3-1	11/23/76	15-30	0.70	0.7	0.01	6.8	16.60	2.1	13.6
3-1	11/23/76	30-45	0.45	0.5	0.04	5.0	0.75	2.0	13.6
3-1	11/23/76	45-60	0.40	0.5	0.04	4.8	0.60	3.6	13.9
3-1	11/23/76	60-90	0.45	0.4	0.09	4.4	0.55	3.9	14.4
3-1	11/23/76	90-120	0.50	0.4	0.22	5.6	0.40	3.8	17.7
3-1	11/23/76	120-150	0.30	0.2	0.60	6.0	0.20	17.1	21.2
3-2	11/23/76	0-1	3.00	6.9	6.65	30.6	16.05	39.0	11.7
3-2	11/23/76	1-7.5	0.95	1.1	0.24	6.4	5.20	1.9	13.0
3-2	11/23/76	7.5-15	0.80	3.1	0.62	11.0	3.05	5.1	13.5
3-2	11/23/76	15-30	0.55	0.4	0.10	4.4	2.30	1.5	12.9
3-2	11/23/76	30-45	0.30	0.3	0.04	2.9	0.85	2.1	13.1
3-2	11/23/76	45-60	0.25	0.3	0.10	5.2	0.60	9.9	13.8
3-2	11/23/76	60-90	0.25	0.3	0.11	6.7	0.80	25.0	16.0
3-2	11/23/76	90-120	0.15	0.3	0.23	6.7	0.55	27.8	18.6
3-2	11/23/76	120-150	0.20	0.3	0.52	4.8	0.35	26.4	21.6
3-3	11/23/76	0-1	1.35	11.1	1.79	30.6	11.65	26.5	8.5
3-3	11/23/76	1-7.5	0.50	3.8	0.29	6.8	2.85	2.5	17.5
3-3	11/23/76	7.5-15	0.25	0.6	0.05	3.7	1.00	0.5	10.4
3-3	11/23/76	15-30	0.25	0.4	0.04	2.5	1.20	0.5	10.0
3-3	11/23/76	30-45	0.15	0.4	0.0	1.8	0.50	0.4	9.2
3-3	11/23/76	45-60	0.20	0.5	0.0	3.2	0.75	0.4	11.4
3-3	11/23/76	60-90	0.20	0.4	0.04	2.2	0.85	0.3	17.4
3-3	11/23/76	90-120	0.05	0.4	0.0	2.1	0.30	0.3	20.5
3-3	11/23/76	120-150	0.05	0.3	0.02	1.8	0.20	0.4	22.2
3-4	11/23/76	0-1	2.05	17.8	2.45	19.8	11.85	19.7	12.5
3-4	11/23/76	1-7.5	0.25	9.0	0.27	11.0	0.55	2.1	17.5
3-4	11/23/76	7.5-15	0.60	5.2	0.50	9.3	0.55	3.8	17.0
3-4	11/23/76	15-30	0.60	3.1	0.55	7.6	0.45	3.1	17.4
3-4	11/23/76	30-45	0.55	2.4	0.45	5.6	0.30	2.3	17.0
3-4	11/23/76	45-60	0.50	3.0	0.36	6.0	1.10	2.4	18.2
3-4	11/23/76	60-90	0.55	2.0	0.40	6.0	0.85	3.3	21.8
3-4	11/23/76	90-120	0.30	0.5	0.27	6.0	0.65	4.6	28.9
3-4	11/23/76	120-150	0.25	0.4	0.27	8.0	0.40	4.2	31.2
3-5	11/23/76	0-1	1.90	5.2	2.15	11.8	12.55	21.1	9.7
3-5	11/23/76	1-7.5	0.65	3.1	0.10	8.4	4.05	2.5	17.8
3-5	11/23/76	7.5-15	0.35	1.3	0.02	9.7	2.30	0.8	14.5
3-5	11/23/76	15-30	0.50	0.5	0.0	2.9	0.50	0.3	8.1
3-5	11/23/76	30-45	0.10	0.6	0.01	2.5	0.70	0.3	8.9
3-5	11/23/76	45-60	0.05	0.6	0.0	5.2	0.75	0.3	12.9
3-5	11/23/76	60-90	0.05	0.4	0.0	8.0	0.50	0.2	17.1
3-5	11/23/76	90-120	0.15	0.4	0.01	7.0	0.50	0.3	18.4
3-5	11/23/76	120-150	0.10	0.3	0.12	3.2	0.45	0.4	19.5

SITE	DATE	NH4-N	NO3-N	PO4-P	CL	EXT N	AVL P	H2O
		----------KG/HA----------						CM
1-1	11/23/76	1.8	22.6	6.0	148.9	17.5	168.1	37.7
1-2	11/23/76	4.6	63.9	4.7	118.4	24.5	54.1	41.2
1-3	11/23/76	2.0	43.1	6.9	86.1	22.1	434.3	35.3
1-4	11/23/76	1.7	81.0	5.4	141.2	25.0	479.5	35.2
1-5	11/23/76	2.5	34.9	5.9	177.1	24.0	423.0	37.1
1-6	11/23/76	0.8	20.6	3.6	87.0	16.8	92.9	45.6
1-7	11/23/76	1.1	45.1	4.9	134.0	26.8	208.8	39.1
1-8	11/23/76	9.2	75.4	8.0	209.8	18.0	184.9	41.5
2-1	11/23/76	19.8	252.3	7.2	141.3	26.6	203.1	45.2
2-2	11/23/76	3.8	27.3	6.7	78.6	10.8	356.9	35.1
2-3	11/23/76	4.0	71.9	3.7	116.2	17.7	26.5	47.6
2-4	11/23/76	5.2	47.5	2.2	127.0	20.2	89.3	40.7
2-5	11/23/76	2.1	141.7	4.3	105.1	15.3	308.2	36.1
2-6	11/23/76	2.6	13.9	7.0	77.0	15.4	309.1	37.4
2-7	11/23/76	2.5	15.9	5.0	98.9	17.9	162.3	48.4
2-8	11/23/76	1.8	63.5	5.7	100.5	28.9	456.5	34.5
3-1	11/23/76	9.1	13.8	4.8	124.2	42.0	119.1	32.1
3-2	11/23/76	6.4	11.2	5.7	116.9	23.1	354.6	32.6
3-3	11/23/76	3.1	12.6	0.9	52.4	14.8	12.5	32.4
3-4	11/23/76	8.5	42.7	7.4	128.9	13.6	71.3	46.0
3-5	11/23/76	3.5	12.7	1.0	111.0	16.7	11.1	30.7

TABLE F1- 7. FOUR MILE CREEK WATERSHED SOIL CORE NUTRIENT DATA FOR 1977

SITE	DATE	DEPTH CM	NH4-N	NO3-N	PO4-P	CL	EXT N	AVL P	H2O
			------SOLUBLE PPM-----				--SOIL PPM--		%
1-1	5/24/77	0-1	1.70	48.6	0.38	13.7	13.50	20.1	8.4
1-1	5/24/77	1-7.5	0.0	56.1	0.33	18.0	1.45	19.4	26.6
1-1	5/24/77	7.5-15	0.0	23.5	0.24	9.8	0.95	6.4	25.8
1-1	5/24/77	15-30	0.0	9.1	0.40	7.6	0.90	6.9	26.3
1-1	5/24/77	30-45	0.0	7.5	0.20	7.6	0.95	5.6	24.4
1-1	5/24/77	45-60	0.0	10.0	0.12	13.3	0.85	8.3	25.4
1-1	5/24/77	60-90	0.0	3.3	0.20	27.2	1.05	8.6	25.6
1-1	5/24/77	90-120	0.0	0.8	0.81	15.9	0.60	13.3	24.2
1-1	5/24/77	120-150	0.0	0.8	0.75	5.4	0.40	4.1	24.6
1-2	5/24/77	0-1	13.70	478.9	0.45	102.6	51.80	38.3	13.0
1-2	5/24/77	1-7.5	0.55	113.6	0.87	26.5	2.65	20.6	25.4
1-2	5/24/77	7.5-15	0.75	28.0	0.67	5.7	3.90	14.8	26.2
1-2	5/24/77	15-30	0.05	24.4	0.13	5.0	1.90	2.6	28.0
1-2	5/24/77	30-45	0.0	16.4	0.0	5.4	1.95	3.0	29.8
1-2	5/24/77	45-60	0.05	10.8	0.18	7.4	1.75	1.0	27.4
1-2	5/24/77	60-90	0.25	4.2	0.19	9.0	1.35	0.1	24.7
1-2	5/24/77	90-120	0.05	1.3	0.21	5.7	1.00	0.2	18.9
1-2	5/24/77	120-150	0.0	1.7	0.17	4.2	0.65	1.0	24.9
1-3	5/24/77	0-1	22.80	206.4	0.54	52.2	99.00	27.7	7.4
1-3	5/24/77	1-7.5	0.25	92.6	0.45	15.7	7.35	17.8	22.8
1-3	5/24/77	7.5-15	0.20	42.6	2.48	10.6	2.75	17.7	24.7
1-3	5/24/77	15-30	0.05	33.3	0.58	9.0	2.00	13.1	22.6
1-3	5/24/77	30-45	0.05	19.3	0.23	7.1	2.35	3.0	26.5
1-3	5/24/77	45-60	0.0	14.8	0.58	10.6	2.15	10.3	25.9
1-3	5/24/77	60-90	0.0	10.9	0.39	18.4	2.15	29.2	24.9
1-3	5/24/77	90-120	0.0	1.2	0.38	7.6	1.35	28.0	22.8
1-3	5/24/77	120-150	0.30	1.0	0.79	8.3	0.70	24.8	23.4
1-4	5/24/77	0-1	20.25	405.5	0.67	85.0	89.80	34.6	11.1
1-4	5/24/77	1-7.5	0.0	85.1	0.63	20.8	1.70	17.0	22.0
1-4	5/24/77	7.5-15	0.05	23.2	0.50	9.8	1.75	6.5	23.8
1-4	5/24/77	15-30	0.0	17.1	0.33	8.3	2.10	3.1	25.7
1-4	5/24/77	30-45	0.0	12.9	0.07	5.2	2.05	2.7	24.8
1-4	5/24/77	45-60	0.0	9.3	0.14	4.5	2.00	8.8	25.1
1-4	5/24/77	60-90	0.0	4.6	0.12	6.2	1.75	22.7	25.2
1-4	5/24/77	90-120	0.0	0.7	0.99	5.6	0.70	28.7	23.1
1-4	5/24/77	120-150	0.0	1.1	0.32	5.4	1.50	33.4	22.6
1-5	5/24/77	0-1	11.25	373.3	0.46	69.1	53.50	33.4	10.2
1-5	5/24/77	1-7.5	0.05	35.1	0.59	8.7	1.85	10.2	24.4
1-5	5/24/77	7.5-15	0.0	21.5	0.65	6.5	2.05	17.3	24.9
1-5	5/24/77	15-30	0.30	12.6	0.59	6.8	2.90	5.5	25.7
1-5	5/24/77	30-45	0.0	10.5	0.13	5.1	2.20	4.0	27.1
1-5	5/24/77	45-60	0.0	10.5	0.02	7.6	1.70	7.2	25.4
1-5	5/24/77	60-90	0.0	7.7	0.14	11.0	1.20	30.5	25.7
1-5	5/24/77	90-120	0.0	1.3	0.40	7.2	1.35	29.9	21.1
1-5	5/24/77	120-150	0.0	0.8	0.55	6.1	1.05	23.9	21.6
1-6	5/24/77	0-1	13.60	444.9	0.12	101.3	39.55	17.1	13.5
1-6	5/24/77	1-7.5	0.65	147.1	0.58	33.7	3.10	28.2	24.6
1-6	5/24/77	7.5-15	0.05	22.3	0.08	11.7	1.60	5.7	26.8
1-6	5/24/77	15-30	0.05	9.2	0.06	5.7	1.60	9.4	27.8
1-6	5/24/77	30-45	0.0	6.1	0.08	6.1	1.25	1.6	26.4
1-6	5/24/77	45-60	0.0	4.6	0.18	7.3	0.75	11.7	26.2
1-6	5/24/77	60-90	5.05	1.5	0.57	23.6	0.55	11.5	25.1
1-6	5/24/77	90-120	0.0	1.1	0.18	7.3	0.30	4.9	24.9
1-6	5/24/77	120-150	0.20	1.0	0.05	9.7	0.55	10.8	28.1
1-7	5/24/77	0-1	21.55	473.8	0.39	92.0	62.80	31.5	7.7
1-7	5/24/77	1-7.5	0.90	63.1	0.36	13.2	1.50	10.3	23.8
1-7	5/24/77	7.5-15	0.10	25.9	0.28	6.1	1.50	6.7	27.3
1-7	5/24/77	15-30	0.10	12.7	0.15	4.3	2.10	2.0	27.2
1-7	5/24/77	30-45	0.10	11.9	0.07	5.3	2.50	8.5	27.6
1-7	5/24/77	45-60	0.15	7.5	0.10	6.1	2.50	22.9	25.3
1-7	5/24/77	60-90	0.10	2.5	0.22	10.6	1.25	28.8	26.2
1-7	5/24/77	90-120	0.15	0.9	0.41	8.1	0.70	21.7	21.0
1-7	5/24/77	120-150	0.0	1.0	0.66	5.4	0.35	15.7	19.8
1-8	5/24/77	0-1	2.30	214.5	0.62	38.2	12.20	30.0	11.5
1-8	5/24/77	1-7.5	0.0	79.7	0.81	16.6	0.75	24.8	23.7
1-8	5/24/77	7.5-15	0.10	29.1	0.43	11.5	0.95	9.2	25.1
1-8	5/24/77	15-30	0.10	25.4	0.22	10.6	0.85	4.7	27.0
1-8	5/24/77	30-45	0.10	28.5	0.24	11.5	0.50	4.2	35.3
1-8	5/24/77	45-60	0.60	16.4	0.58	17.8	0.45	3.9	31.6
1-8	5/24/77	60-90	0.70	7.6	0.78	14.1	0.45	4.3	26.9
1-8	5/24/77	90-120	0.45	3.5	0.72	9.0	0.35	12.1	26.7
1-8	5/24/77	120-150	0.30	1.9	0.64	7.3	0.35	11.3	25.7

TABLE F1- 7. CONTINUED

SITE	DATE	DEPTH CM	NH4-N	NO3-N	PO4-P	CL	EXT N	AVL P	H2O
			------SOLUBLE PPM-----				--SOIL PPM--		%
2-1	5/24/77	0-1	0.75	22.0	0.43	8.8	6.75	13.4	10.8
2-1	5/24/77	1-7.5	0.30	21.9	0.76	11.7	2.55	19.9	26.9
2-1	5/24/77	7.5-15	0.35	15.9	0.72	22.0	2.30	19.7	26.6
2-1	5/24/77	15-30	0.30	12.1	0.32	22.4	0.95	5.2	27.3
2-1	5/24/77	30-45	0.40	15.6	0.40	19.4	0.75	3.1	34.4
2-1	5/24/77	45-60	0.55	10.9	0.72	14.2	1.10	1.7	29.3
2-1	5/24/77	60-90	0.45	7.5	0.49	10.6	1.05	1.3	22.4
2-1	5/24/77	90-120	0.40	1.3	0.43	7.8	1.15	1.5	20.2
2-1	5/24/77	120-150	0.20	0.6	0.37	5.4	1.20	3.0	20.8
2-2	5/24/77	0-1	0.80	8.2	0.27	3.9	9.95	8.1	7.0
2-2	5/24/77	1-7.5	0.15	17.7	0.49	4.6	3.30	13.7	25.1
2-2	5/24/77	7.5-15	0.15	13.0	0.30	6.3	1.15	6.3	23.8
2-2	5/24/77	15-30	0.10	6.5	0.09	9.9	1.40	7.2	26.0
2-2	5/24/77	30-45	0.10	6.4	0.03	8.7	1.90	19.2	25.0
2-2	5/24/77	45-60	0.15	8.2	0.06	7.7	1.35	17.9	24.2
2-2	5/24/77	60-90	0.10	6.8	0.15	8.8	1.60	20.3	26.0
2-2	5/24/77	90-120	0.60	1.3	0.67	8.2	1.00	17.9	20.8
2-2	5/24/77	120-150	1.20	0.3	0.58	5.5	0.45	16.7	19.6
2-3	5/24/77	0-1	0.75	14.1	0.32	6.7	13.60	6.2	10.5
2-3	5/24/77	1-7.5	0.05	8.6	0.34	5.8	0.65	4.3	29.1
2-3	5/24/77	7.5-15	0.15	7.2	1.66	14.2	1.00	19.1	32.2
2-3	5/24/77	15-30	0.05	7.9	0.31	25.7	0.65	1.2	30.6
2-3	5/24/77	30-45	0.15	6.6	0.65	14.8	0.80	0.4	27.3
2-3	5/24/77	45-60	0.05	7.0	0.38	7.8	0.55	0.1	27.2
2-3	5/24/77	60-90	0.0	1.3	0.10	5.5	0.55	0.3	28.8
2-3	5/24/77	90-120	0.0	0.3	0.14	6.2	0.55	1.1	27.2
2-3	5/24/77	120-150	0.0	0.2	0.0	4.2	0.65	3.2	28.2
2-4	5/24/77	0-1	0.55	16.4	0.46	6.2	10.90	13.8	8.2
2-4	5/24/77	1-7.5	0.05	27.9	1.34	9.8	4.25	28.7	27.4
2-4	5/24/77	7.5-15	0.05	6.4	0.38	12.5	2.35	5.0	29.7
2-4	5/24/77	15-30	0.0	6.6	0.17	7.0	1.75	12.6	30.2
2-4	5/24/77	30-45	0.0	6.5	0.09	8.4	2.40	6.5	28.8
2-4	5/24/77	45-60	0.0	1.9	0.33	5.9	1.10	19.7	27.2
2-4	5/24/77	60-90	0.0	0.2	0.64	5.8	0.60	13.8	26.9
2-4	5/24/77	90-120	0.0	5.2	0.06	5.2	1.25	14.5	26.3
2-4	5/24/77	120-150	0.0	0.2	0.58	7.4	0.15	13.3	25.6
2-5	5/24/77	0-1	1.15	26.0	0.46	7.0	8.55	21.9	6.4
2-5	5/24/77	1-7.5	1.30	24.4	1.31	35.4	0.95	21.6	28.4
2-5	5/24/77	7.5-15	0.30	17.0	0.89	7.5	1.95	20.6	26.2
2-5	5/24/77	15-30	1.15	6.1	0.37	61.1	1.85	2.9	26.9
2-5	5/24/77	30-45	0.25	6.0	0.06	27.8	1.15	2.6	27.0
2-5	5/24/77	45-60	1.20	6.8	0.84	33.4	1.05	13.3	27.0
2-5	5/24/77	60-90	0.80	4.2	0.68	14.8	0.80	30.0	25.6
2-5	5/24/77	90-120	0.55	0.5	0.31	10.3	2.00	26.7	21.4
2-5	5/24/77	120-150	0.65	0.0	0.77	5.9	1.95	24.1	24.3
2-6	5/24/77	0-1	1.20	40.4	0.79	56.7	11.00	12.1	5.2
2-6	5/24/77	1-7.5	0.45	25.2	0.51	54.5	2.75	16.9	23.1
2-6	5/24/77	7.5-15	1.95	25.9	0.86	20.6	2.25	18.9	24.5
2-6	5/24/77	15-30	1.00	24.7	0.56	35.3	2.80	19.1	25.3
2-6	5/24/77	30-45	0.90	12.4	0.31	14.9	2.15	5.9	27.8
2-6	5/24/77	45-60	0.55	9.8	1.24	58.3	1.70	4.9	25.7
2-6	5/24/77	60-90	1.70	7.9	0.36	48.7	2.25	10.3	25.6
2-6	5/24/77	90-120	0.95	2.4	1.31	55.1	1.20	32.9	20.3
2-6	5/24/77	120-150	0.75	1.6	0.62	21.5	1.00	34.8	20.0
2-7	5/24/77	0-1	0.65	20.3	0.82	7.0	9.90	7.7	7.1
2-7	5/24/77	1-7.5	0.05	15.0	1.82	5.9	1.30	6.5	27.2
2-7	5/24/77	7.5-15	0.15	11.8	0.48	9.9	2.20	10.2	29.0
2-7	5/24/77	15-30	0.05	6.3	1.09	16.9	2.60	2.6	29.4
2-7	5/24/77	30-45	0.05	6.5	0.78	10.0	2.65	1.7	28.6
2-7	5/24/77	45-60	0.05	5.9	0.32	8.2	2.40	0.3	27.5
2-7	5/24/77	60-90	0.05	3.8	0.46	7.0	1.45	0.3	28.1
2-7	5/24/77	90-120	0.05	0.4	0.17	6.6	0.35	0.9	29.2
2-7	5/24/77	120-150	0.0	0.1	0.18	4.3	0.55	1.9	30.7
2-8	5/24/77	0-1	0.75	25.9	0.22	9.6	14.30	6.2	5.9
2-8	5/24/77	1-7.5	0.20	13.0	0.30	7.3	3.70	8.7	24.0
2-8	5/24/77	7.5-15	0.20	11.7	0.35	8.2	4.40	12.0	25.5
2-8	5/24/77	15-30	0.10	5.2	0.19	11.1	2.20	2.0	25.8
2-8	5/24/77	30-45	0.10	4.5	0.28	12.6	1.50	4.0	27.0
2-8	5/24/77	45-60	0.15	6.6	0.05	8.1	1.90	23.9	25.6
2-8	5/24/77	60-90	0.15	4.4	0.32	5.3	1.70	21.7	25.4
2-8	5/24/77	90-120	0.15	0.3	0.42	5.8	1.35	27.8	18.1
2-8	5/24/77	120-150	0.10	0.4	0.43	10.7	1.05	27.6	19.2

TABLE F1- 7. CONCLUDED

SITE	DATE	DEPTH CM	NH4-N	NO3-N	PO4-P	CL	EXT N	AVL P	H2O
			------SOLUBLE PPM-----				--SOIL PPM--		%
3-1	5/24/77	0-1	1.25	6.5	16.89	28.8	20.35	77.2	13.9
3-1	5/24/77	1-7.5	0.40	7.5	10.58	12.9	10.10	58.2	14.4
3-1	5/24/77	7.5-15	0.30	1.8	2.33	6.6	8.10	24.8	12.8
3-1	5/24/77	15-30	0.20	0.8	1.08	7.4	4.25	13.5	13.7
3-1	5/24/77	30-45	0.10	0.3	1.00	9.6	3.45	9.6	15.4
3-1	5/24/77	45-60	0.0	0.2	0.24	5.8	2.40	17.0	17.5
3-1	5/24/77	60-90	0.0	0.2	0.33	4.2	1.60	27.1	16.1
3-1	5/24/77	90-120	0.0	0.0	0.52	4.4	0.70	24.0	18.6
3-1	5/24/77	120-150	0.05	0.0	1.34	5.8	0.40	20.0	24.0
3-2	5/24/77	0-1	0.15	7.5	4.91	13.8	1.55	35.1	14.2
3-2	5/24/77	1-7.5	0.15	4.4	0.87	11.0	3.55	4.2	14.9
3-2	5/24/77	7.5-15	0.25	0.8	0.48	8.3	4.30	2.1	13.6
3-2	5/24/77	15-30	0.0	0.5	0.64	6.8	2.95	1.5	15.3
3-2	5/24/77	30-45	0.0	0.5	0.27	4.4	2.30	0.7	15.7
3-2	5/24/77	45-60	0.0	0.5	0.15	3.8	1.70	1.3	17.4
3-2	5/24/77	60-90	0.0	0.4	0.15	9.3	1.10	16.5	16.8
3-2	5/24/77	90-120	0.0	0.4	0.58	5.8	0.90	30.6	18.3
3-2	5/24/77	120-150	0.0	0.4	0.78	5.4	0.80	27.4	23.0
3-3	5/24/77	0-1	0.10	13.4	1.57	12.2	2.05	14.1	14.7
3-3	5/24/77	1-7.5	0.25	3.3	0.80	11.3	4.35	1.7	15.4
3-3	5/24/77	7.5-15	0.25	1.6	0.59	6.8	2.85	1.2	17.8
3-3	5/24/77	15-30	0.0	0.9	0.32	8.3	2.80	1.3	19.7
3-3	5/24/77	30-45	0.0	0.9	0.32	5.8	2.15	1.8	20.3
3-3	5/24/77	45-60	0.0	0.8	0.28	6.5	1.65	2.8	20.5
3-3	5/24/77	60-90	0.05	0.3	5.92	18.5	0.80	0.2	20.2
3-3	5/24/77	90-120	0.0	0.3	0.39	7.5	0.45	0.2	21.2
3-3	5/24/77	120-150	0.0	0.4	0.05	3.8	0.25	0.3	22.9
3-4	5/24/77	0-1	0.0	22.8	0.04	4.3	3.45	39.4	19.6
3-4	5/24/77	1-7.5	0.0	7.1	0.84	6.8	2.20	6.3	14.7
3-4	5/24/77	7.5-15	0.0	2.7	0.87	6.5	1.90	2.6	12.1
3-4	5/24/77	15-30	0.0	2.0	0.38	6.1	1.85	4.1	15.0
3-4	5/24/77	30-45	0.05	2.5	0.43	7.6	2.40	6.7	22.2
3-4	5/24/77	45-60	0.25	1.4	0.51	10.6	2.10	3.5	22.4
3-4	5/24/77	60-90	0.0	0.9	0.35	5.8	3.00	4.6	21.8
3-4	5/24/77	90-120	0.20	0.5	0.45	8.7	1.50	3.8	22.6
3-4	5/24/77	120-150	0.0	0.7	0.25	5.8	1.15	4.4	24.9
3-5	5/24/77	0-1	0.20	11.3	2.63	37.7	1.75	23.8	15.6
3-5	5/24/77	1-7.5	0.25	1.1	0.86	10.6	3.60	1.6	11.7
3-5	5/24/77	7.5-15	0.0	0.4	0.40	7.9	1.45	2.7	11.0
3-5	5/24/77	15-30	0.0	0.4	0.23	7.6	1.40	3.5	12.0
3-5	5/24/77	30-45	0.0	0.3	0.29	7.6	1.20	3.9	14.2
3-5	5/24/77	45-60	0.0	0.3	0.02	5.1	0.80	0.2	20.8
3-5	5/24/77	60-90	0.05	0.2	0.04	3.9	0.65	0.3	21.7
3-5	5/24/77	90-120	0.0	0.2	0.04	3.4	0.55	0.5	22.4
3-5	5/24/77	120-150	0.0	0.7	0.43	3.1	0.30	0.5	22.9

SITE	DATE	NH4-N	NO3-N	PO4-P	CL	EXT N	AVL P	H2O
		----------KG/HA----------						CM
1-1	5/24/77	0.2	144.4	9.1	271.7	16.7	167.5	48.8
1-2	5/24/77	3.9	295.8	4.3	147.0	33.5	53.0	48.1
1-3	5/24/77	4.1	316.5	11.7	215.3	47.5	412.7	46.8
1-4	5/24/77	2.1	233.5	7.9	138.3	39.4	392.6	46.7
1-5	5/24/77	1.7	188.9	7.0	154.1	35.9	396.9	46.5
1-6	5/24/77	22.6	241.7	4.4	247.3	20.4	182.4	51.1
1-7	5/24/77	4.7	203.2	6.5	152.2	31.4	345.2	46.4
1-8	5/24/77	7.6	299.6	11.7	225.1	10.7	168.6	53.8
2-1	5/24/77	7.2	145.1	9.3	231.3	23.9	78.8	47.3
2-2	5/24/77	8.7	101.1	6.8	149.8	25.7	321.0	45.0
2-3	5/24/77	0.7	63.5	5.4	172.8	13.6	44.5	55.3
2-4	5/24/77	0.1	82.6	7.8	134.8	24.7	269.6	52.9
2-5	5/24/77	14.4	94.0	11.5	389.5	30.2	398.9	48.4
2-6	5/24/77	20.4	184.8	14.1	774.4	35.7	404.5	45.4
2-7	5/24/77	0.9	78.1	9.4	152.2	27.8	37.5	56.4
2-8	5/24/77	2.7	75.9	6.3	162.3	35.6	385.6	44.2
3-1	5/24/77	1.5	12.5	26.6	121.7	48.4	442.2	34.9
3-2	5/24/77	0.4	13.3	10.0	129.0	31.4	316.5	35.1
3-3	5/24/77	0.7	15.6	28.1	174.0	24.9	18.2	40.3
3-4	5/24/77	1.4	31.5	8.3	139.5	38.4	90.6	41.6
3-5	5/24/77	0.4	9.8	4.6	100.9	17.0	26.3	37.9

TABLE FI- 8. FOUR MILE CREEK WATERSHED SOIL CORE NUTRIENT DATA FOR 1977

SITE	DATE	DEPTH CM	NH4-N	NO3-N	PO4-P	CL	EXT N	AVL P	H2O
			------SOLUBLE PPM-----				--SOIL PPM--		%
1-1	6/20/77	0-1	1.25	155.9	0.60	29.9	6.20	32.6	10.6
1-1	6/20/77	1-7.5	0.15	104.5	0.47	17.6	2.15	24.4	20.1
1-1	6/20/77	7.5-15	0.20	24.9	0.39	7.1	3.10	10.9	20.5
1-1	6/20/77	15-30	0.25	7.5	0.45	5.8	1.90	6.7	19.9
1-2	6/20/77	0-1	1.60	127.2	0.53	23.4	9.45	33.1	9.3
1-2	6/20/77	1-7.5	0.05	63.5	0.56	12.8	1.95	28.2	19.1
1-2	6/20/77	7.5-15	0.35	17.2	0.41	10.1	2.15	9.1	19.0
1-2	6/20/77	15-30	0.05	2.3	0.25	4.8	1.95	10.5	18.1
1-3	6/20/77	0-1	3.90	195.4	0.45	36.6	17.80	29.2	5.6
1-3	6/20/77	1-7.5	0.30	95.4	0.54	20.3	3.35	23.9	17.2
1-3	6/20/77	7.5-15	0.25	24.1	0.63	7.0	4.45	14.2	16.6
1-3	6/20/77	15-30	0.10	5.6	0.46	5.4	1.85	5.0	17.4
2-1	6/20/77	0-1	0.0	25.1	0.42	8.3	9.10	12.2	5.4
2-1	6/20/77	1-7.5	0.05	16.4	0.48	10.4	1.00	10.4	20.4
2-1	6/20/77	7.5-15	0.55	10.4	0.61	21.3	2.10	9.1	18.9
2-1	6/20/77	15-30	0.25	18.9	0.71	18.8	3.50	21.1	21.8
2-2	6/20/77	0-1	0.45	12.0	0.29	7.9	3.85	9.0	3.5
2-2	6/20/77	1-7.5	0.0	9.3	0.45	9.1	0.90	8.8	19.2
2-2	6/20/77	7.5-15	0.15	7.6	0.79	16.4	3.05	20.8	18.5
2-2	6/20/77	15-30	0.0	2.8	0.20	17.2	1.40	8.5	20.7
2-3	6/20/77	0-1	1.05	29.2	0.26	6.2	7.95	10.2	3.5
2-3	6/20/77	1-7.5	0.10	16.5	0.58	16.4	1.55	8.9	18.8
2-3	6/20/77	7.5-15	0.40	16.7	0.83	22.8	4.70	15.5	18.3
2-3	6/20/77	15-30	0.05	7.5	0.46	20.8	2.50	8.5	21.0

SITE	DATE	NH4-N	NO3-N	PO4-P	CL	EXT N	AVL P	H2O
		----------KG/HA----------						CM
1-1	6/20/77	0.9	141.5	1.7	35.5	8.9	46.6	7.4
1-2	6/20/77	0.6	87.1	1.4	31.7	8.2	55.3	6.9
1-3	6/20/77	1.1	133.5	1.9	37.5	12.3	45.8	6.3
2-1	6/20/77	1.0	61.2	2.3	64.7	10.2	57.7	7.6
2-2	6/20/77	0.2	21.5	1.5	55.9	6.6	43.9	7.2
2-3	6/20/77	0.7	46.7	2.2	74.6	11.2	38.9	7.2

TABLE F1- 9. FOUR MILE CREEK WATERSHED SOIL CORE NUTRIENT DATA FOR 1977

SITE	DATE	DEPTH CM	NH4-N	NO3-N	PO4-P	CL	EXT N	AVL P	H2O
			------SOLUBLE PPM-----				--SOIL PPM--		%
1-1	7/15/77	0-1	0.55	5.8	0.28	7.1	1.60	21.6	6.6
1-1	7/15/77	1-7.5	0.45	21.4	0.31	7.6	1.10	25.4	15.2
1-1	7/15/77	7.5-15	0.55	5.3	0.09	7.8	1.00	15.4	17.0
1-1	7/15/77	15-30	0.70	1.0	0.02	8.5	2.05	11.4	15.6
1-1	7/15/77	30-45	0.60	1.6	0.0	15.0	1.70	15.0	15.2
1-1	7/15/77	45-60	0.35	1.0	0.0	15.0	1.25	16.9	15.6
1-1	7/15/77	60-90	0.40	0.4	0.09	11.0	0.70	16.3	18.2
1-1	7/15/77	90-120	0.40	0.3	0.43	13.7	0.55	19.4	22.2
1-1	7/15/77	120-150	0.55	0.3	0.39	11.4	0.45	9.5	23.3
1-2	7/15/77	0-1	0.35	5.1	1.09	7.6	2.20	23.0	6.1
1-2	7/15/77	1-7.5	0.25	13.2	0.45	8.8	1.60	6.4	18.0
1-2	7/15/77	7.5-15	1.25	10.6	0.36	15.9	1.75	3.4	18.6
1-2	7/15/77	15-30	1.70	7.3	0.47	22.2	2.20	1.8	16.8
1-2	7/15/77	30-45	0.35	4.0	0.36	13.2	2.00	1.1	15.2
1-2	7/15/77	45-60	0.20	2.7	0.25	9.8	1.90	0.6	15.2
1-2	7/15/77	60-90	0.20	1.7	0.22	9.3	1.50	1.1	16.6
1-2	7/15/77	90-120	0.10	1.0	0.27	8.1	1.00	3.2	19.7
1-2	7/15/77	120-150	0.15	0.7	0.40	7.4	0.70	4.9	28.6
1-3	7/15/77	0-1	0.75	27.9	1.81	12.7	4.20	35.3	5.0
1-3	7/15/77	1-7.5	0.30	55.6	0.35	8.0	1.25	9.1	15.8
1-3	7/15/77	7.5-15	0.20	16.8	0.39	9.0	0.90	9.7	16.6
1-3	7/15/77	15-30	0.20	9.2	0.13	13.0	2.75	2.7	17.5
1-3	7/15/77	30-45	0.10	4.7	0.11	7.1	5.10	3.9	16.6
1-3	7/15/77	45-60	0.10	3.2	0.11	6.0	2.55	17.2	15.7
1-3	7/15/77	60-90	0.20	1.7	0.17	12.8	1.75	23.6	15.8
1-3	7/15/77	90-120	0.35	0.4	0.34	15.6	1.20	20.6	18.2
1-3	7/15/77	120-150	0.20	0.3	0.53	15.7	0.55	16.8	21.0
1-4	7/15/77	0-1	1.75	47.6	1.18	9.8	11.80	34.5	3.9
1-4	7/15/77	1-7.5	0.0	101.3	0.16	12.5	1.30	12.3	15.6
1-4	7/15/77	7.5-15	0.40	20.8	0.45	23.9	1.75	13.9	15.3
1-4	7/15/77	15-30	0.55	9.1	0.09	8.3	2.00	3.8	16.4
1-4	7/15/77	30-45	0.0	10.0	0.01	5.3	1.20	5.2	15.4
1-4	7/15/77	45-60	0.25	6.0	0.13	9.6	1.70	15.2	16.8
1-4	7/15/77	60-90	0.0	4.4	0.07	10.6	1.30	31.1	17.9
1-4	7/15/77	90-120	0.15	2.0	0.26	7.7	0.95	34.7	20.8
1-4	7/15/77	120-150	0.35	1.7	0.21	5.4	0.50	25.2	24.1
1-5	7/15/77	0-1	3.80	72.2	1.03	11.0	23.00	33.9	4.6
1-5	7/15/77	1-7.5	0.25	39.0	0.71	8.0	1.50	18.2	15.9
1-5	7/15/77	7.5-15	0.25	11.9	0.35	6.4	2.00	6.9	15.2
1-5	7/15/77	15-30	0.25	7.4	0.22	4.1	1.90	4.2	15.2
1-5	7/15/77	30-45	0.15	4.3	0.14	4.1	2.35	5.2	16.6
1-5	7/15/77	45-60	0.45	4.9	0.15	16.7	2.10	15.6	16.5
1-5	7/15/77	60-90	0.15	2.5	0.13	10.0	2.00	33.6	15.8
1-5	7/15/77	90-120	0.15	1.3	0.30	7.4	2.00	35.1	19.1
1-5	7/15/77	120-150	0.20	0.8	0.48	6.4	1.75	25.4	23.5
1-6	7/15/77	0-1	0.25	8.8	0.44	7.1	2.15	18.6	7.0
1-6	7/15/77	1-7.5	0.15	11.6	0.38	7.8	1.20	16.1	17.8
1-6	7/15/77	7.5-15	0.20	7.8	0.41	5.9	1.20	8.3	19.1
1-6	7/15/77	15-30	0.20	2.7	0.24	5.6	1.40	8.2	17.3
1-6	7/15/77	30-45	0.30	1.5	0.26	6.3	1.70	5.2	17.1
1-6	7/15/77	45-60	0.15	1.3	0.24	7.3	1.00	2.4	17.9
1-6	7/15/77	60-90	0.55	0.6	0.34	7.2	0.85	4.8	20.1
1-6	7/15/77	90-120	0.05	0.9	0.10	5.3	0.60	2.8	24.8
1-6	7/15/77	120-150	0.05	0.6	0.11	5.2	0.60	2.5	28.9
1-7	7/15/77	0-1	0.15	153.5	0.33	18.0	2.10	32.1	7.8
1-7	7/15/77	1-7.5	0.10	75.3	0.43	5.9	1.30	23.3	18.9
1-7	7/15/77	7.5-15	0.15	10.4	0.33	11.7	1.40	5.3	19.0
1-7	7/15/77	15-30	0.50	4.8	0.19	6.0	1.90	7.1	18.7
1-7	7/15/77	30-45	0.10	3.4	0.09	3.9	1.70	15.7	18.3
1-7	7/15/77	45-60	0.35	2.7	0.11	3.5	1.60	19.4	19.3
1-7	7/15/77	60-90	0.10	1.3	0.24	7.0	1.20	15.7	23.0
1-7	7/15/77	90-120	0.30	0.4	0.63	6.5	0.60	14.0	24.2
1-7	7/15/77	120-150	0.15	0.4	0.64	7.0	0.40	11.6	23.3
1-8	7/15/77	0-1	0.40	13.5	2.03	7.5	1.60	42.4	6.5
1-8	7/15/77	1-7.5	0.30	62.7	0.65	16.9	1.50	20.1	17.1
1-8	7/15/77	7.5-15	0.15	22.3	0.18	4.5	1.40	13.4	18.3
1-8	7/15/77	15-30	0.70	14.3	0.22	71.1	0.20	9.8	17.8
1-8	7/15/77	30-45	0.20	16.4	0.21	7.2	0.20	4.4	22.2
1-8	7/15/77	45-60	0.15	12.3	0.31	7.6	0.20	4.1	19.6
1-8	7/15/77	60-90	0.15	7.9	0.19	15.3	0.10	4.3	19.4
1-8	7/15/77	90-120	0.10	6.2	0.20	5.2	0.10	6.6	22.2
1-8	7/15/77	120-150	0.10	2.5	0.17	8.5	0.10	6.9	26.1

TABLE F1- 9. CONTINUED

SITE	DATE	DEPTH CM	NH4-N	NO3-N	PO4-P	CL	EXT N	AVL P	H2O
			------SOLUBLE PPM-----				--SOIL PPM--		%
2-1	7/26/77	0-1	0.50	5.5	0.46	12.1	0.45	12.3	17.3
2-1	7/26/77	1-7.5	0.65	19.0	1.72	20.3	6.40	47.2	17.7
2-1	7/26/77	7.5-15	0.60	16.3	0.63	22.8	0.65	27.0	17.6
2-1	7/26/77	15-30	0.60	12.6	0.34	17.3	1.25	6.7	18.8
2-1	7/26/77	30-45	0.65	12.8	0.30	17.2	2.00	4.9	17.7
2-1	7/26/77	45-60	0.55	10.9	0.28	12.9	2.20	2.7	18.0
2-1	7/26/77	60-90	0.35	8.8	0.05	7.1	1.65	2.3	17.8
2-1	7/26/77	90-120	0.40	4.6	0.06	6.4	1.15	1.5	19.9
2-1	7/26/77	120-150	0.25	2.1	0.0	5.4	0.90	2.6	26.5
2-2	7/26/77	0-1	0.15	5.2	0.13	4.1	0.45	7.1	15.6
2-2	7/26/77	1-7.5	0.20	6.3	0.38	6.9	0.70	23.5	13.7
2-2	7/26/77	7.5-15	0.05	5.0	0.0	29.0	0.90	14.1	20.6
2-2	7/26/77	15-30	0.10	3.2	0.0	19.5	1.05	8.5	19.3
2-2	7/26/77	30-45	0.10	2.7	0.0	8.9	1.20	30.7	17.9
2-2	7/26/77	45-60	0.35	1.0	0.01	6.7	0.85	32.5	17.2
2-2	7/26/77	60-90	0.30	0.5	0.06	5.7	0.60	25.7	16.2
2-2	7/26/77	90-120	0.10	0.3	0.18	3.9	0.35	21.7	19.5
2-2	7/26/77	120-150	0.30	0.2	0.59	5.4	0.30	22.9	23.8
2-3	7/26/77	0-1	0.10	7.8	0.33	4.8	0.35	4.7	19.6
2-3	7/26/77	1-7.5	0.20	1.5	0.22	9.6	0.35	2.7	24.1
2-3	7/26/77	7.5-15	0.05	16.9	0.24	26.0	0.45	9.1	22.9
2-3	7/26/77	15-30	0.30	6.9	0.27	17.4	0.60	1.0	19.7
2-3	7/26/77	30-45	0.60	5.0	0.19	11.4	0.95	0.4	19.5
2-3	7/26/77	45-60	0.15	2.7	0.09	6.8	0.70	0.4	18.1
2-3	7/26/77	60-90	0.15	1.4	0.10	4.6	0.45	0.6	19.8
2-3	7/26/77	90-120	0.20	0.6	0.08	3.5	0.25	1.3	23.5
2-3	7/26/77	120-150	0.25	0.8	0.06	6.3	0.20	0.8	33.4
2-4	7/26/77	0-1	0.25	5.9	0.29	5.2	0.05	14.0	16.2
2-4	7/26/77	1-7.5	0.30	3.4	0.32	7.1	0.35	18.8	18.9
2-4	7/26/77	7.5-15	0.30	6.3	3.00	22.6	0.55	55.6	18.6
2-4	7/26/77	15-30	0.20	3.0	0.0	18.8	1.05	4.9	19.1
2-4	7/26/77	30-45	0.30	2.7	0.0	11.6	1.05	15.3	18.2
2-4	7/26/77	45-60	0.25	1.9	0.0	6.3	0.55	21.6	18.6
2-4	7/26/77	60-90	0.20	1.3	0.10	5.8	0.80	19.2	19.7
2-4	7/26/77	90-120	0.30	0.5	0.18	6.7	0.70	16.0	23.4
2-4	7/26/77	120-150	0.50	0.2	0.27	7.7	0.15	15.5	25.1
2-5	7/26/77	0-1	0.05	9.1	0.26	3.8	0.45	9.0	10.8
2-5	7/26/77	1-7.5	0.10	21.1	1.03	8.3	0.65	21.9	17.1
2-5	7/26/77	7.5-15	0.15	16.1	0.50	19.1	1.10	34.2	16.9
2-5	7/26/77	15-30	0.10	7.1	0.12	12.7	1.40	4.5	17.8
2-5	7/26/77	30-45	0.0	6.3	0.04	6.7	1.35	4.1	18.0
2-5	7/26/77	45-60	0.05	4.6	0.08	4.9	1.25	17.8	18.4
2-5	7/26/77	60-90	0.35	2.3	0.44	6.8	1.10	25.4	19.4
2-5	7/26/77	90-120	0.10	0.9	0.19	4.2	0.50	23.0	19.3
2-5	7/26/77	120-150	0.0	0.5	0.43	3.4	0.25	19.2	21.5
2-6	7/26/77	0-1	0.45	6.6	0.12	5.0	4.75	13.4	8.5
2-6	7/26/77	1-7.5	0.30	8.6	0.20	5.4	0.35	7.7	16.2
2-6	7/26/77	7.5-15	0.40	6.5	0.05	6.4	0.50	4.1	16.9
2-6	7/26/77	15-30	0.40	4.5	0.0	7.1	1.40	3.5	17.2
2-6	7/26/77	30-45	0.40	4.3	0.0	7.8	1.40	2.6	16.7
2-6	7/26/77	45-60	0.25	3.0	0.0	5.8	1.30	9.2	17.6
2-6	7/26/77	60-90	0.35	1.7	0.07	31.9	1.10	41.7	18.7
2-6	7/26/77	90-120	0.55	0.4	0.32	13.7	0.60	45.9	19.6
2-6	7/26/77	120-150	0.25	0.3	0.20	6.3	0.35	42.0	20.4
2-7	7/26/77	0-1	0.15	6.8	0.19	6.8	0.80	9.9	14.0
2-7	7/26/77	1-7.5	0.25	13.4	0.28	10.3	0.75	20.8	20.2
2-7	7/26/77	7.5-15	0.15	20.1	0.23	15.3	1.15	10.8	20.0
2-7	7/26/77	15-30	0.30	10.8	0.37	15.7	0.90	4.9	22.5
2-7	7/26/77	30-45	0.40	4.0	0.32	13.7	0.50	3.3	19.6
2-7	7/26/77	45-60	0.35	2.9	0.21	10.6	0.35	2.2	18.2
2-7	7/26/77	60-90	0.20	2.0	0.09	8.5	0.30	2.4	18.6
2-7	7/26/77	90-120	0.25	0.9	0.18	6.4	0.15	3.9	19.3
2-7	7/26/77	120-150	0.60	1.4	0.16	8.8	0.10	1.7	23.1
2-8	7/26/77	0-1	0.70	6.6	0.14	6.4	0.35	9.1	11.0
2-8	7/26/77	1-7.5	0.40	11.7	0.64	6.3	0.60	31.3	16.7
2-8	7/26/77	7.5-15	0.35	5.5	0.55	6.4	0.80	6.1	18.9
2-8	7/26/77	15-30	0.45	3.2	0.0	7.8	0.95	4.0	17.1
2-8	7/26/77	30-45	0.40	1.9	0.0	5.0	1.00	4.5	17.1
2-8	7/26/77	45-60	0.30	1.7	0.0	7.8	0.85	18.5	17.5
2-8	7/26/77	60-90	0.45	0.8	0.03	8.5	0.75	32.6	17.7
2-8	7/26/77	90-120	0.15	0.3	0.15	4.6	0.50	19.1	18.5
2-8	7/26/77	120-150	0.30	0.3	0.23	5.1	0.30	22.1	20.3

TABLE F1- 9. CONCLUDED

SITE	DATE	DEPTH CM	NH4-N	NO3-N	PO4-P	CL	EXT N	AVL P	H2O
			------SOLUBLE PPM-----				--SOIL PPM--		%
3-1	7/21/77	0-1	2.30	41.9	13.04	45.5	5.80	66.5	31.1
3-1	7/21/77	1-7.5	0.40	18.6	3.63	15.4	4.30	40.1	19.0
3-1	7/21/77	7.5-15	0.15	9.0	1.00	15.9	0.55	13.8	13.7
3-1	7/21/77	15-30	0.20	2.3	0.39	5.5	1.20	6.4	11.4
3-1	7/21/77	30-45	0.15	1.0	0.29	26.3	1.45	4.7	11.9
3-1	7/21/77	45-60	0.15	0.5	0.16	4.6	1.40	6.1	13.3
3-1	7/21/77	60-90	0.10	0.3	0.17	8.3	1.10	10.8	14.0
3-1	7/21/77	90-120	0.10	0.1	0.20	12.8	0.75	14.4	15.1
3-1	7/21/77	120-150	0.10	0.1	0.31	31.2	0.45	13.0	18.6
3-2	7/21/77	0-1	0.25	26.2	2.37	14.3	1.65	19.8	25.5
3-2	7/21/77	1-7.5	0.60	13.1	0.41	18.5	2.50	3.9	17.4
3-2	7/21/77	7.5-15	0.40	5.5	0.36	8.0	3.30	2.4	13.6
3-2	7/21/77	15-30	0.20	0.6	0.40	6.3	2.80	2.3	12.9
3-2	7/21/77	30-45	0.10	0.1	0.21	6.8	1.80	2.2	13.7
3-2	7/21/77	45-60	0.40	0.3	0.22	6.5	1.90	8.4	14.3
3-2	7/21/77	60-90	0.25	0.1	0.20	7.8	1.80	22.5	14.4
3-2	7/21/77	90-120	0.15	0.1	0.63	5.7	1.00	21.2	15.3
3-2	7/21/77	120-150	0.20	0.1	0.86	6.3	0.80	19.3	16.9
3-3	7/21/77	0-1	0.35	38.4	1.25	13.5	6.80	29.6	32.9
3-3	7/21/77	1-7.5	0.40	6.1	0.10	19.9	5.85	2.0	20.6
3-3	7/21/77	7.5-15	0.25	4.6	0.17	11.4	3.60	2.1	17.6
3-3	7/21/77	15-30	0.25	2.4	0.0	9.2	1.40	2.0	10.5
3-3	7/21/77	30-45	0.05	1.7	0.0	5.0	0.90	2.4	10.2
3-3	7/21/77	45-60	0.15	0.4	0.0	9.9	1.10	2.3	11.1
3-3	7/21/77	60-90	0.10	0.3	0.0	4.7	0.65	0.2	14.4
3-3	7/21/77	90-120	0.15	0.3	0.0	4.7	0.50	0.0	20.5
3-3	7/21/77	120-150	0.25	0.4	0.0	15.8	0.0	0.1	23.2
3-4	7/21/77	0-1	0.15	47.3	2.38	32.2	1.10	17.2	31.1
3-4	7/21/77	1-7.5	0.40	18.5	1.00	14.2	0.60	3.9	22.3
3-4	7/21/77	7.5-15	0.25	10.3	0.50	13.0	0.65	4.0	21.5
3-4	7/21/77	15-30	0.50	18.3	0.86	11.0	0.90	4.0	17.9
3-4	7/21/77	30-45	0.50	5.7	0.61	7.4	0.90	3.5	18.0
3-4	7/21/77	45-60	0.60	5.0	0.57	7.9	0.80	3.4	17.4
3-4	7/21/77	60-90	0.40	4.2	0.42	5.9	0.70	3.6	19.4
3-4	7/21/77	90-120	0.35	2.0	0.40	5.6	0.80	4.6	23.4
3-4	7/21/77	120-150	0.25	0.9	0.38	6.4	0.60	5.1	29.8
3-5	7/21/77	0-1	0.20	14.3	0.70	21.1	0.15	29.8	23.2
3-5	7/21/77	1-7.5	0.35	3.4	0.18	9.1	5.20	5.6	17.7
3-5	7/21/77	7.5-15	0.40	0.7	0.21	3.6	2.85	7.3	11.3
3-5	7/21/77	15-30	0.30	0.0	0.16	3.2	1.60	12.6	10.6
3-5	7/21/77	30-45	0.30	0.0	0.19	3.5	1.10	10.9	11.4
3-5	7/21/77	45-60	0.05	0.0	0.14	2.2	1.15	16.0	12.4
3-5	7/21/77	60-90	0.05	0.0	0.25	1.9	0.70	19.1	13.1
3-5	7/21/77	90-120	0.20	0.0	0.58	2.1	0.40	22.7	19.9
3-5	7/21/77	120-150	0.0	0.0	1.10	1.6	0.05	22.1	24.5

SITE	DATE	NH4-N	NO3-N	PO4-P	CL	EXT N	AVL P	H2O
		----------KG/HA----------						CM
1-1	7/15/77	9.5	34.8	4.1	231.8	18.1	300.0	37.2
1-2	7/15/77	7.4	61.7	6.5	206.9	27.4	55.1	38.3
1-3	7/15/77	4.3	107.3	5.7	243.1	35.6	309.4	34.4
1-4	7/15/77	4.1	189.6	3.4	172.8	24.0	436.9	37.1
1-5	7/15/77	4.4	101.4	5.7	156.5	40.4	449.3	35.3
1-6	7/15/77	4.1	37.1	4.3	119.9	18.2	93.3	42.8
1-7	7/15/77	4.2	117.9	7.5	125.4	21.1	272.5	42.3
1-8	7/15/77	3.8	222.1	4.6	294.4	5.1	139.6	41.6
2-1	7/26/77	8.5	161.7	4.3	204.4	31.0	119.0	39.3
2-2	7/26/77	4.1	27.7	3.8	160.0	12.2	449.5	37.4
2-3	7/26/77	4.6	56.7	2.5	158.0	8.5	25.3	46.0
2-4	7/26/77	6.0	32.0	5.4	177.6	12.3	351.9	41.4
2-5	7/26/77	2.3	82.6	6.1	128.2	16.4	372.3	37.4
2-6	7/26/77	7.2	45.9	2.7	255.0	17.0	560.6	36.2
2-7	7/26/77	6.6	81.6	3.9	193.8	7.2	80.2	39.5
2-8	7/26/77	6.5	36.2	2.8	123.6	12.7	379.0	35.6
3-1	7/21/77	2.9	39.0	10.1	314.4	21.6	241.3	29.3
3-2	7/21/77	4.6	22.8	9.4	140.8	31.9	284.8	29.4
3-3	7/21/77	3.5	27.0	0.4	177.2	20.1	21.1	33.2
3-4	7/21/77	7.6	113.7	10.3	150.9	14.5	83.2	43.5
3-5	7/21/77	2.9	5.5	9.2	53.3	18.8	346.2	32.5

TABLE F1-10. FOUR MILE CREEK WATERSHED SOIL CORE NUTRIENT DATA FOR 1977

SITE	DATE	DEPTH CM	NH4-N	NO3-N	PO4-P	CL	EXT N	AVL P	H2O
			SOLUBLE PPM				SOIL PPM		%
1-1	8/18/77	0-1	0.10	6.5	0.80	4.6	2.80	24.6	27.7
1-1	8/18/77	1-7.5	0.55	6.3	0.52	8.1	0.60	23.8	25.2
1-1	8/18/77	7.5-15	0.55	9.1	0.31	12.8	0.35	8.8	24.4
1-1	8/18/77	15-30	0.10	10.6	0.13	5.9	0.55	4.4	25.3
1-2	8/18/77	0-1	1.40	4.9	0.77	20.1	0.85	31.7	20.6
1-2	8/18/77	1-7.5	0.30	5.3	0.39	8.8	0.65	16.8	24.7
1-2	8/18/77	7.5-15	1.25	3.2	0.24	10.0	0.35	7.4	23.2
1-2	8/18/77	15-30	0.85	0.9	0.14	9.1	0.35	9.0	24.1
1-3	8/18/77	0-1	0.45	3.6	0.91	5.6	0.55	26.8	20.3
1-3	8/18/77	1-7.5	0.25	11.1	0.29	6.6	0.50	17.6	23.4
1-3	8/18/77	7.5-15	2.00	40.4	0.25	10.5	0.60	7.9	22.4
1-3	8/18/77	15-30	0.55	20.3	0.11	5.7	0.65	4.6	21.3
2-1	8/18/77	0-1	0.40	6.4	0.33	5.0	0.70	11.4	25.9
2-1	8/18/77	1-7.5	0.05	3.9	0.26	8.4	0.40	9.4	25.5
2-1	8/18/77	7.5-15	0.20	9.8	0.61	6.9	2.25	13.7	24.8
2-1	8/18/77	15-30	0.10	12.4	0.36	22.1	0.15	8.5	27.5
2-2	8/18/77	1-7.5	0.20	5.0	0.38	5.5	0.20	9.3	24.1
2-2	8/18/77	7.5-15	0.10	8.3	0.52	7.3	0.25	20.4	24.5
2-2	8/18/77	15-30	0.0	4.3	0.13	11.0	0.55	13.5	25.5
2-3	8/18/77	1-7.5	0.10	5.2	0.30	5.2	1.00	6.4	22.5
2-3	8/18/77	7.5-15	0.20	9.9	0.17	59.0	1.25	10.0	23.6
2-3	8/18/77	15-30	0.10	8.8	0.11	17.0	0.70	5.6	24.3

SITE	DATE	NH4-N	NO3-N	PO4-P	CL	EXT N	AVL P	H2O
		KG/HA						CM
1-1	8/18/77	1.2	34.3	1.1	30.4	2.1	39.1	9.4
1-2	8/18/77	3.2	9.8	0.9	35.9	1.6	42.1	9.0
1-3	8/18/77	3.2	85.8	0.8	26.7	2.2	33.5	8.2
2-1	8/18/77	0.5	36.2	1.5	55.0	2.8	38.0	9.9
2-2	8/18/77	0.3	20.2	1.1	32.0	1.4	52.3	9.1
2-3	8/18/77	0.5	30.2	0.6	92.0	3.3	25.2	8.6

TABLE F1-11. FOUR MILE CREEK WATERSHED SOIL CORE NUTRIENT DATA FOR 1977

SITE	DATE	DEPTH CM	NH4-N	NO3-N	PO4-P	CL	EXT N	AVL P	H2O
			------SOLUBLE PPM-----				--SOIL PPM--		%
1-1	11/ 3/77	0-1	0.15	4.3	0.41	7.2	0.90	20.7	33.4
1-1	11/ 3/77	1-7.5	0.20	9.5	0.28	11.4	0.80	16.3	30.4
1-1	11/ 3/77	7.5-15	0.20	7.2	0.31	9.9	0.80	10.1	31.4
1-1	11/ 3/77	15-30	0.20	9.4	0.23	13.1	0.95	10.4	28.7
1-1	11/ 3/77	30-45	0.20	4.9	0.06	7.3	1.10	5.3	25.2
1-1	11/ 3/77	45-60	0.25	8.0	0.04	8.5	1.10	5.1	27.4
1-1	11/ 3/77	60-90	0.20	4.2	0.14	7.2	0.75	5.0	28.7
1-1	11/ 3/77	90-120	0.20	1.7	0.28	8.5	0.95	6.3	28.1
1-1	11/ 3/77	120-150	0.25	0.8	0.0	8.3	0.40	3.8	25.5
1-2	11/ 3/77	0-1	0.25	3.6	0.49	7.3	1.65	16.8	43.7
1-2	11/ 3/77	1-7.5	0.25	5.4	0.23	7.2	0.40	3.7	31.5
1-2	11/ 3/77	7.5-15	0.30	6.1	0.26	5.1	0.50	7.9	29.6
1-2	11/ 3/77	15-30	0.35	4.2	0.16	5.2	0.50	1.9	33.8
1-2	11/ 3/77	30-45	0.30	3.6	0.22	9.4	0.65	0.8	29.7
1-2	11/ 3/77	45-60	0.30	2.7	0.16	7.2	0.70	0.7	28.2
1-2	11/ 3/77	60-90	0.20	3.2	0.08	7.1	0.60	0.6	27.6
1-2	11/ 3/77	90-120	0.25	1.3	0.04	11.5	0.50	0.6	30.2
1-2	11/ 3/77	120-150	0.20	0.7	0.08	7.2	0.45	1.3	32.9
1-3	11/ 3/77	0-1	0.15	3.8	0.55	5.6	1.00	21.8	34.5
1-3	11/ 3/77	1-7.5	0.20	3.5	0.20	7.1	0.85	9.1	30.9
1-3	11/ 3/77	7.5-15	0.25	2.7	0.12	6.9	1.40	3.3	29.2
1-3	11/ 3/77	15-30	0.15	3.6	0.04	5.9	0.60	2.1	29.1
1-3	11/ 3/77	30-45	0.10	2.0	0.00	5.9	0.80	5.3	27.6
1-3	11/ 3/77	45-60	0.35	0.8	0.03	8.9	0.75	17.8	27.2
1-3	11/ 3/77	60-90	0.35	0.2	0.15	8.4	0.60	27.1	26.7
1-3	11/ 3/77	90-120	0.25	0.1	0.01	6.7	0.55	20.9	24.6
1-3	11/ 3/77	120-150	0.25	0.0	0.11	5.5	0.35	19.8	22.7
1-4	11/ 3/77	0-1	0.25	3.8	0.18	8.4	2.45	19.5	40.0
1-4	11/ 3/77	1-7.5	0.30	4.4	0.09	6.9	0.60	9.4	29.4
1-4	11/ 3/77	7.5-15	0.25	7.4	0.17	6.8	0.60	8.2	28.2
1-4	11/ 3/77	15-30	0.25	7.6	0.02	6.3	0.80	2.6	29.0
1-4	11/ 3/77	30-45	0.30	8.3	0.01	7.1	0.60	2.7	28.7
1-4	11/ 3/77	45-60	0.30	8.8	0.02	8.6	0.70	11.4	28.1
1-4	11/ 3/77	60-90	0.25	3.8	0.03	8.4	0.45	27.8	27.8
1-4	11/ 3/77	90-120	0.30	0.5	0.13	8.2	0.40	30.7	24.5
1-4	11/ 3/77	120-150	0.25	0.2	0.29	9.1	0.25	12.7	24.0
1-5	11/ 3/77	0-1	0.35	2.8	0.33	9.3	2.65	19.7	37.0
1-5	11/ 3/77	1-7.5	0.25	4.0	0.45	9.0	0.60	20.4	30.1
1-5	11/ 3/77	7.5-15	0.30	5.2	0.22	9.4	0.60	8.6	27.6
1-5	11/ 3/77	15-30	0.25	4.7	0.12	14.4	0.40	2.0	29.3
1-5	11/ 3/77	30-45	0.20	3.7	0.0	8.1	0.55	2.5	28.5
1-5	11/ 3/77	45-60	0.20	2.6	0.00	12.4	0.55	12.4	27.6
1-5	11/ 3/77	60-90	0.20	2.1	0.0	9.6	0.45	30.4	28.6
1-5	11/ 3/77	90-120	0.20	1.8	0.02	10.5	0.40	28.1	30.6
1-5	11/ 3/77	120-150	0.20	0.1	0.07	8.4	0.35	16.0	29.7
1-6	11/ 3/77	0-1	0.20	1.9	0.19	10.4	0.55	21.0	36.5
1-6	11/ 3/77	1-7.5	0.25	4.8	0.06	9.0	0.40	8.6	29.5
1-6	11/ 3/77	7.5-15	0.25	5.7	0.09	8.4	0.45	5.4	29.9
1-6	11/ 3/77	15-30	0.25	4.0	0.05	7.7	1.15	7.4	28.8
1-6	11/ 3/77	30-45	0.25	2.9	0.06	7.5	3.80	7.5	28.8
1-6	11/ 3/77	45-60	0.25	2.2	0.07	10.8	0.50	2.0	27.7
1-6	11/ 3/77	60-90	0.25	1.8	0.08	9.6	0.40	1.6	27.8
1-6	11/ 3/77	90-120	0.30	0.2	0.05	10.7	0.65	0.8	30.6
1-6	11/ 3/77	120-150	0.25	0.2	0.08	8.5	0.30	1.4	30.7
1-7	11/ 3/77	0-1	0.20	3.3	0.26	8.3	0.85	24.5	35.5
1-7	11/ 3/77	1-7.5	0.20	2.4	0.21	9.3	0.50	6.3	32.0
1-7	11/ 3/77	7.5-15	0.20	2.7	0.22	9.0	0.35	3.1	31.3
1-7	11/ 3/77	15-30	0.15	1.3	0.14	7.8	0.75	5.1	30.5
1-7	11/ 3/77	30-45	0.20	1.4	0.12	6.7	0.85	12.5	29.7
1-7	11/ 3/77	45-60	0.20	2.1	0.11	6.9	0.75	22.5	29.1
1-7	11/ 3/77	60-90	0.05	1.2	0.18	8.0	0.55	22.4	30.4
1-7	11/ 3/77	90-120	0.05	0.4	0.31	8.4	0.65	20.2	31.2
1-7	11/ 3/77	120-150	0.05	0.2	0.26	8.2	1.25	16.1	25.7
1-8	11/ 3/77	0-1	0.20	4.9	0.54	8.8	1.00	27.6	37.1
1-8	11/ 3/77	1-7.5	0.25	3.8	0.25	10.2	0.45	10.9	30.9
1-8	11/ 3/77	7.5-15	0.30	4.7	0.28	10.8	0.60	13.1	28.3
1-8	11/ 3/77	15-30	0.30	6.1	0.20	9.6	0.75	5.8	29.6
1-8	11/ 3/77	30-45	0.35	7.0	0.23	9.9	0.20	4.0	35.3
1-8	11/ 3/77	45-60	0.50	6.3	0.33	12.4	0.20	3.5	34.2
1-8	11/ 3/77	60-90	0.55	6.3	0.43	12.4	0.30	4.2	33.5
1-8	11/ 3/77	90-120	0.40	5.3	0.37	11.7	0.50	5.4	32.9
1-8	11/ 3/77	120-150	0.35	2.8	0.43	11.7	0.50	8.5	35.7

TABLE F1-11. CONTINUED

SITE	DATE	DEPTH CM	NH4-N	NO3-N	PO4-P	CL	EXT N	AVL P	H2O
			------SOLUBLE PPM-----				--SOIL PPM--		%
2-1	11/ 3/77	0-1	0.20	2.2	0.23	9.3	0.45	11.9	36.4
2-1	11/ 3/77	1-7.5	0.20	10.1	0.24	10.0	0.55	6.6	27.7
2-1	11/ 3/77	7.5-15	0.25	12.0	0.28	11.1	0.45	7.3	28.6
2-1	11/ 3/77	15-30	0.25	13.8	0.23	12.7	0.45	4.4	27.3
2-1	11/ 3/77	30-45	0.25	15.4	0.17	16.2	0.40	3.9	31.9
2-1	11/ 3/77	45-60	0.45	13.2	0.36	15.8	0.20	1.8	31.6
2-1	11/ 3/77	60-90	0.35	9.8	0.31	16.5	0.50	1.2	27.9
2-1	11/ 3/77	90-120	0.25	5.3	0.29	12.2	0.60	1.8	26.6
2-1	11/ 3/77	120-150	0.25	2.5	0.27	11.7	0.40	2.9	28.1
2-2	11/ 3/77	0-1	0.20	1.7	0.13	9.6	0.80	5.9	37.2
2-2	11/ 3/77	1-7.5	0.25	4.6	0.18	12.1	0.35	9.8	29.7
2-2	11/ 3/77	7.5-15	0.20	6.3	0.13	9.5	0.40	6.0	30.2
2-2	11/ 3/77	15-30	0.20	5.9	0.09	9.6	0.50	3.2	29.5
2-2	11/ 3/77	30-45	0.15	3.2	0.08	10.9	0.50	23.6	28.9
2-2	11/ 3/77	45-60	0.55	2.2	0.15	27.7	0.45	25.2	28.0
2-2	11/ 3/77	60-90	0.50	2.4	0.14	13.1	0.35	20.7	27.5
2-2	11/ 3/77	90-120	0.40	2.2	0.44	14.4	0.30	16.4	28.3
2-2	11/ 3/77	120-150	0.10	1.0	0.78	9.6	0.30	16.8	27.5
2-3	11/ 3/77	0-1	0.10	3.9	0.18	4.0	1.10	5.7	37.8
2-3	11/ 3/77	1-7.5	0.20	6.3	0.19	6.8	0.20	3.7	34.2
2-3	11/ 3/77	7.5-15	0.20	10.8	0.23	7.1	0.20	6.5	33.8
2-3	11/ 3/77	15-30	0.25	8.2	0.22	7.1	0.15	2.0	33.0
2-3	11/ 3/77	30-45	0.25	7.7	0.21	11.7	0.25	1.1	31.0
2-3	11/ 3/77	45-60	0.15	5.7	0.14	6.7	0.15	0.3	29.4
2-3	11/ 3/77	60-90	0.20	4.5	0.15	7.1	0.30	0.4	28.9
2-3	11/ 3/77	90-120	0.25	2.7	0.17	7.1	0.25	0.7	29.7
2-3	11/ 3/77	120-150	0.15	0.7	0.14	6.1	0.50	0.7	29.6
2-4	11/ 3/77	0-1	0.15	8.5	0.17	7.9	0.35	11.9	35.3
2-4	11/ 3/77	1-7.5	0.30	10.0	0.20	5.4	0.30	12.0	32.5
2-4	11/ 3/77	7.5-15	0.15	12.5	0.23	5.8	0.40	19.5	32.4
2-4	11/ 3/77	15-30	0.15	11.6	0.13	6.1	0.45	3.8	30.6
2-4	11/ 3/77	30-45	0.20	12.5	0.08	6.8	0.80	13.1	26.8
2-4	11/ 3/77	45-60	0.20	9.9	0.09	7.1	0.25	16.2	27.6
2-4	11/ 3/77	60-90	0.30	11.2	0.10	9.8	0.30	11.8	29.0
2-4	11/ 3/77	90-120	0.30	6.1	0.13	10.4	0.45	8.7	27.8
2-4	11/ 3/77	120-150	0.35	1.7	0.19	9.7	0.35	7.2	29.0
2-5	11/ 3/77	0-1	0.35	5.2	0.18	7.5	0.65	6.0	35.2
2-5	11/ 3/77	1-7.5	0.35	2.2	0.17	9.0	0.55	2.3	30.8
2-5	11/ 3/77	7.5-15	0.35	4.6	0.22	9.7	0.45	5.2	29.6
2-5	11/ 3/77	15-30	0.35	4.9	0.12	7.1	0.55	3.0	29.2
2-5	11/ 3/77	30-45	0.35	7.3	0.10	9.0	0.55	7.3	30.0
2-5	11/ 3/77	45-60	0.35	6.7	0.12	9.7	0.75	20.2	29.2
2-5	11/ 3/77	60-90	0.30	4.9	0.05	13.8	0.90	22.8	24.7
2-5	11/ 3/77	90-120	0.35	2.3	0.17	8.8	1.10	13.4	30.9
2-5	11/ 3/77	120-150	0.20	1.1	0.37	5.0	0.35	17.2	28.2
2-6	11/ 3/77	0-1	0.25	12.4	0.14	3.4	1.00	10.3	37.6
2-6	11/ 3/77	1-7.5	0.25	3.4	0.19	2.8	0.30	3.8	30.3
2-6	11/ 3/77	7.5-15	0.35	4.5	0.25	2.6	0.35	5.4	30.1
2-6	11/ 3/77	15-30	0.40	6.8	0.21	4.3	0.30	3.5	31.0
2-6	11/ 3/77	30-45	0.15	8.9	0.12	6.2	0.75	2.7	29.5
2-6	11/ 3/77	45-60	0.15	9.1	0.07	3.4	0.55	2.9	27.6
2-6	11/ 3/77	60-90	0.20	6.8	0.08	4.8	1.05	21.1	27.2
2-6	11/ 3/77	90-120	0.25	3.7	0.21	4.8	0.40	32.4	29.6
2-6	11/ 3/77	120-150	0.25	1.8	0.35	5.5	0.45	21.6	31.2
2-7	11/ 3/77	0-1	0.30	6.9	0.17	3.4	0.55	8.4	37.3
2-7	11/ 3/77	1-7.5	0.20	5.1	0.22	3.7	0.30	5.4	32.0
2-7	11/ 3/77	7.5-15	0.25	9.0	0.50	3.5	0.50	17.8	31.2
2-7	11/ 3/77	15-30	0.20	8.1	0.52	3.4	0.20	4.0	33.6
2-7	11/ 3/77	30-45	0.55	11.2	0.39	11.5	0.20	2.4	36.4
2-7	11/ 3/77	45-60	0.50	10.3	0.37	6.9	0.40	2.1	31.5
2-7	11/ 3/77	60-90	0.50	7.7	0.26	9.6	0.30	1.9	29.5
2-7	11/ 3/77	90-120	0.30	3.8	0.19	6.9	0.50	3.8	26.1
2-7	11/ 3/77	120-150	0.45	3.1	0.26	6.0	0.40	3.0	28.0
2-8	11/ 3/77	0-1	0.25	3.4	0.42	2.3	0.60	5.1	31.7
2-8	11/ 3/77	1-7.5	0.20	3.5	0.35	1.9	0.50	8.4	28.2
2-8	11/ 3/77	7.5-15	0.10	6.0	0.39	2.1	0.65	16.4	27.9
2-8	11/ 3/77	15-30	0.10	4.7	0.02	1.5	0.30	2.2	30.1
2-8	11/ 3/77	30-45	0.05	6.1	0.01	2.5	0.50	6.2	28.8
2-8	11/ 3/77	45-60	0.20	4.0	0.02	8.4	0.60	24.3	29.8
2-8	11/ 3/77	60-90	0.10	2.3	0.07	12.1	0.60	23.9	27.9
2-8	11/ 3/77	90-120	0.15	0.3	0.22	5.2	0.40	24.3	29.8
2-8	11/ 3/77	120-150	0.10	0.1	0.31	2.4	0.70	26.7	21.6

TABLE F1-11. CONCLUDED

SITE	DATE	DEPTH CM	NH4-N	NO3-N	PO4-P	CL	EXT N	AVL P	H2O
			------SOLUBLE PPM-----				--SOIL PPM--		%
3-1	11/ 3/77	0-1	0.20	0.2	7.36	31.5	0.90	55.6	49.0
3-1	11/ 3/77	1-7.5	0.20	0.3	0.40	4.3	0.25	7.8	29.6
3-1	11/ 3/77	7.5-15	0.30	1.8	1.61	7.0	0.50	27.9	30.0
3-1	11/ 3/77	15-30	0.15	0.0	0.33	4.0	0.25	3.9	29.4
3-1	11/ 3/77	30-45	0.15	0.0	0.20	3.4	0.35	4.4	28.3
3-1	11/ 3/77	45-60	0.05	0.1	0.15	2.7	0.70	11.0	27.3
3-1	11/ 3/77	60-90	0.05	0.1	0.21	5.9	0.80	29.1	23.7
3-1	11/ 3/77	90-120	0.05	0.0	0.31	2.8	0.60	26.7	17.3
3-1	11/ 3/77	120-150	0.05	0.0	0.47	3.3	0.30	20.7	22.3
3-2	11/ 3/77	0-1	0.20	0.5	9.65	19.8	2.30	45.1	54.9
3-2	11/ 3/77	1-7.5	0.35	3.5	0.44	8.8	4.05	12.4	30.0
3-2	11/ 3/77	7.5-15	0.35	1.8	0.27	8.0	3.90	4.4	29.3
3-2	11/ 3/77	15-30	0.10	0.6	0.20	3.9	0.50	3.9	30.6
3-2	11/ 3/77	30-45	0.05	0.4	0.17	2.4	0.70	12.9	29.0
3-2	11/ 3/77	45-60	0.05	0.2	0.24	3.3	0.40	21.7	28.1
3-2	11/ 3/77	60-90	0.0	0.2	0.30	3.0	0.35	24.7	27.2
3-2	11/ 3/77	90-120	0.05	0.1	0.41	8.1	0.40	20.2	19.1
3-2	11/ 3/77	120-150	0.10	0.1	0.53	8.8	0.40	15.6	19.3
3-3	11/ 3/77	0-1	0.10	0.0	2.48	11.3	1.35	9.8	40.7
3-3	11/ 3/77	1-7.5	0.15	0.1	0.40	4.0	0.40	6.5	29.9
3-3	11/ 3/77	7.5-15	0.10	0.0	0.22	2.6	0.45	6.9	25.8
3-3	11/ 3/77	15-30	0.05	0.0	0.27	3.4	0.45	7.8	24.8
3-3	11/ 3/77	30-45	0.05	0.0	0.41	9.8	0.20	11.9	24.2
3-3	11/ 3/77	45-60	0.05	0.0	0.15	30.1	0.25	2.8	24.5
3-3	11/ 3/77	60-90	0.0	0.0	0.07	2.6	0.25	1.3	21.7
3-3	11/ 3/77	90-120	0.05	0.0	0.05	1.9	0.25	0.6	21.6
3-3	11/ 3/77	120-150	0.0	0.0	0.07	1.5	0.35	1.2	23.2
3-4	11/ 3/77	0-1	0.10	3.3	1.43	23.0	2.15	35.4	49.7
3-4	11/ 3/77	1-7.5	0.05	3.3	0.18	4.0	0.25	1.8	28.6
3-4	11/ 3/77	7.5-15	0.10	2.5	0.21	3.9	0.25	3.1	32.7
3-4	11/ 3/77	15-30	0.15	2.4	0.30	9.4	0.25	2.3	37.8
3-4	11/ 3/77	30-45	0.15	2.1	0.28	4.3	0.45	1.5	32.0
3-4	11/ 3/77	45-60	0.25	1.6	0.33	6.4	0.35	1.1	32.4
3-4	11/ 3/77	60-90	0.20	1.1	0.35	7.0	0.30	1.9	29.7
3-4	11/ 3/77	90-120	0.15	0.8	0.34	5.0	0.35	2.2	34.6
3-4	11/ 3/77	120-150	0.15	0.4	0.30	3.9	0.35	2.8	34.1
3-5	11/ 3/77	0-1	0.10	0.8	2.70	13.8	1.60	25.9	43.4
3-5	11/ 3/77	1-7.5	0.15	1.3	0.25	4.7	2.05	5.1	28.0
3-5	11/ 3/77	7.5-15	0.05	0.8	0.28	7.5	0.70	5.7	26.6
3-5	11/ 3/77	15-30	0.0	0.3	0.25	3.2	0.55	7.5	26.6
3-5	11/ 3/77	30-45	0.05	0.1	0.31	4.0	0.35	8.3	26.6
3-5	11/ 3/77	45-60	0.20	0.1	0.48	36.7	0.70	10.9	25.2
3-5	11/ 3/77	60-90	0.05	0.1	0.78	5.4	0.25	15.1	21.8
3-5	11/ 3/77	90-120	0.0	0.1	0.31	2.7	0.20	7.8	21.6
3-5	11/ 3/77	120-150	0.0	0.0	0.18	4.4	0.15	0.4	22.9

SITE	DATE	NH4-N	NO3-N	PO4-P	CL	EXT N	AVL P	H2O
		----------KG/HA----------						CM
1-1	11/ 3/77	4.2	83.9	2.9	170.6	15.8	124.6	54.0
1-2	11/ 3/77	4.9	51.5	2.3	156.0	10.6	29.0	59.4
1-3	11/ 3/77	4.9	19.3	1.6	134.3	12.2	331.1	51.0
1-4	11/ 3/77	5.3	75.6	2.2	157.7	9.6	333.4	52.1
1-5	11/ 3/77	4.1	45.5	1.2	196.9	8.9	356.6	57.1
1-6	11/ 3/77	5.1	35.8	1.4	181.3	16.4	61.2	57.1
1-7	11/ 3/77	2.0	21.4	4.2	155.9	15.1	320.4	57.7
1-8	11/ 3/77	7.9	102.2	6.9	223.2	8.4	122.4	65.1
2-1	11/ 3/77	5.6	169.7	5.5	265.5	8.9	56.5	55.5
2-2	11/ 3/77	6.1	53.7	6.5	259.5	7.3	327.9	55.3
2-3	11/ 3/77	4.0	88.0	3.4	142.0	5.7	23.2	59.3
2-4	11/ 3/77	5.3	160.0	2.7	168.7	7.9	202.9	56.4
2-5	11/ 3/77	6.0	75.5	3.5	175.6	13.8	278.9	55.9
2-6	11/ 3/77	4.7	103.9	3.8	91.9	11.2	328.0	57.6
2-7	11/ 3/77	7.8	127.3	5.9	137.6	7.1	73.3	58.5
2-8	11/ 3/77	2.3	47.7	3.3	105.5	10.5	385.8	53.6
3-1	11/ 3/77	1.7	2.6	8.2	81.3	10.0	382.2	47.2
3-2	11/ 3/77	1.6	8.9	8.1	116.4	15.0	334.5	48.6
3-3	11/ 3/77	0.7	0.1	3.2	113.1	6.0	67.1	45.9
3-4	11/ 3/77	3.2	26.2	6.3	111.6	6.7	46.0	64.7
3-5	11/ 3/77	0.9	4.1	7.9	146.2	8.0	154.4	46.6

TABLE F1-12. FOUR MILE CREEK WATERSHED SOIL CORE NUTRIENT DATA FOR 1978

SITE	DATE	DEPTH CM	NH4-N	NO3-N	PO4-P	CL	EXT N	AVL P	H2O
			------SOLUBLE PPM-----				--SOIL PPM--		%
1-1	4/14/78	0-1	0.0	3.6	0.62	3.3	1.60	9.6	9.9
1-1	4/14/78	1-7.5	0.0	3.9	0.97	4.3	0.35	16.7	25.8
1-1	4/14/78	7.5-15	0.0	5.9	2.17	5.2	0.40	21.8	29.1
1-1	4/14/78	15-30	0.0	10.3	0.17	45.6	0.70	9.3	26.9
1-1	4/14/78	30-45	0.0	5.3	0.17	29.7	0.60	12.3	27.9
1-1	4/14/78	45-60	0.0	2.4	0.34	10.9	0.50	14.6	26.9
1-1	4/14/78	60-90	0.0	2.7	0.34	7.6	0.55	13.7	26.4
1-1	4/14/78	90-120	0.0	3.3	0.72	6.0	0.45	14.0	24.7
1-1	4/14/78	120-150	0.0	0.3	1.44	10.4	0.20	16.6	24.8
1-2	4/14/78	0-1	0.10	6.0	0.56	4.0	3.00	8.0	11.3
1-2	4/14/78	1-7.5	0.0	6.8	0.79	4.8	1.30	7.5	28.0
1-2	4/14/78	7.5-15	0.0	8.6	0.63	8.7	0.70	6.7	29.2
1-2	4/14/78	15-30	0.0	7.8	0.67	19.8	0.70	10.8	33.7
1-2	4/14/78	30-45	0.0	6.1	0.45	15.6	1.40	2.9	33.6
1-2	4/14/78	45-60	0.0	4.3	0.70	6.0	1.85	1.7	29.8
1-2	4/14/78	60-90	0.0	5.1	0.51	3.8	1.20	0.6	28.1
1-2	4/14/78	90-120	0.0	3.0	0.34	1.6	0.70	0.2	28.9
1-2	4/14/78	120-150	0.0	1.4	0.42	1.0	0.30	0.8	29.5
1-3	4/14/78	0-1	0.05	6.3	0.45	2.7	1.80	9.4	10.8
1-3	4/14/78	1-7.5	0.0	4.5	0.75	1.6	0.85	5.1	26.0
1-3	4/14/78	7.5-15	0.0	4.9	0.86	2.3	0.70	9.0	27.3
1-3	4/14/78	15-30	0.0	6.3	0.64	13.0	1.30	6.8	29.6
1-3	4/14/78	30-45	0.0	3.9	0.30	9.3	1.05	1.5	28.3
1-3	4/14/78	45-60	0.0	2.5	0.13	14.5	1.30	4.2	28.1
1-3	4/14/78	60-90	0.0	2.1	0.18	13.4	0.90	23.7	27.0
1-3	4/14/78	90-120	0.0	2.1	0.53	13.0	0.30	28.5	27.9
1-3	4/14/78	120-150	0.0	0.8	1.26	8.7	0.10	22.5	27.8
1-4	4/14/78	0-1	0.0	8.8	0.50	7.3	1.85	4.5	13.7
1-4	4/14/78	1-7.5	0.0	4.1	0.72	4.8	1.00	5.2	24.9
1-4	4/14/78	7.5-15	0.0	5.9	0.79	5.6	1.00	5.0	26.1
1-4	4/14/78	15-30	0.0	5.4	0.61	9.9	1.25	5.8	29.8
1-4	4/14/78	30-45	0.0	4.7	0.21	10.5	1.10	3.4	29.2
1-4	4/14/78	45-60	0.0	3.1	0.06	5.2	1.05	3.0	27.3
1-4	4/14/78	60-90	0.0	2.3	0.29	4.7	1.10	34.2	29.9
1-4	4/14/78	90-120	0.0	1.0	0.44	9.5	0.60	35.2	28.2
1-4	4/14/78	120-150	0.0	0.2	0.70	3.0	0.30	25.9	26.0
1-5	4/14/78	0-1	0.0	9.5	0.46	3.2	1.45	8.6	13.4
1-5	4/14/78	1-7.5	0.0	5.3	0.37	2.1	0.40	7.1	22.5
1-5	4/14/78	7.5-15	0.0	5.9	0.64	9.3	0.50	7.9	27.6
1-5	4/14/78	15-30	0.0	4.1	0.51	9.3	1.55	3.6	28.8
1-5	4/14/78	30-45	0.0	3.6	0.63	3.7	1.15	2.0	27.4
1-5	4/14/78	45-60	0.0	3.3	0.31	2.4	1.10	5.6	27.4
1-5	4/14/78	60-90	0.0	2.1	0.43	2.3	0.65	25.8	27.7
1-5	4/14/78	90-120	0.0	1.3	0.93	2.0	0.45	30.4	29.1
1-5	4/14/78	120-150	0.0	0.9	1.41	3.4	0.30	23.1	30.4
1-6	4/14/78	0-1	0.0	2.1	0.36	0.9	2.10	10.5	10.4
1-6	4/14/78	1-7.5	0.0	4.3	0.46	1.3	0.80	8.0	24.3
1-6	4/14/78	7.5-15	0.0	5.1	1.78	4.9	0.20	16.8	24.6
1-6	4/14/78	15-30	0.0	6.0	0.27	33.1	0.40	17.5	30.2
1-6	4/14/78	30-45	0.0	3.8	0.23	21.7	1.05	18.2	29.6
1-6	4/14/78	45-60	0.0	1.9	0.43	3.9	0.75	17.8	29.3
1-6	4/14/78	60-90	0.0	0.9	0.51	4.9	0.35	12.1	29.7
1-6	4/14/78	90-120	0.0	0.0	1.00	4.6	0.35	11.2	27.0
1-6	4/14/78	120-150	0.0	0.1	0.64	6.8	0.20	11.6	28.2
1-7	4/14/78	0-1	0.0	5.4	0.61	2.3	1.90	15.7	11.2
1-7	4/14/78	1-7.5	0.0	3.9	0.59	2.6	0.60	11.0	28.3
1-7	4/14/78	7.5-15	0.0	6.3	0.70	4.6	0.25	6.8	29.6
1-7	4/14/78	15-30	0.0	4.3	0.30	14.7	0.0	4.1	30.9
1-7	4/14/78	30-45	0.0	3.4	0.20	9.3	0.40	6.3	29.2
1-7	4/14/78	45-60	0.10	2.9	0.27	4.5	0.35	15.9	29.5
1-7	4/14/78	60-90	0.0	3.0	0.28	6.1	0.80	23.3	29.6
1-7	4/14/78	90-120	0.0	3.7	0.52	7.7	1.15	23.1	30.8
1-7	4/14/78	120-150	0.0	2.1	1.17	9.2	0.35	17.4	30.8
1-8	4/14/78	0-1	0.05	6.8	0.63	1.6	0.90	9.1	11.4
1-8	4/14/78	1-7.5	0.0	10.8	1.43	3.9	0.25	25.9	27.2
1-8	4/14/78	7.5-15	0.0	13.0	1.79	9.5	0.30	27.8	30.6
1-8	4/14/78	15-30	0.0	10.1	0.83	26.3	0.10	4.8	27.3
1-8	4/14/78	30-45	0.0	8.1	0.84	13.0	0.70	3.8	35.1
1-8	4/14/78	45-60	0.0	6.6	1.18	3.1	0.25	1.8	33.1
1-8	4/14/78	60-90	0.0	4.3	1.43	3.2	0.0	1.9	28.9
1-8	4/14/78	90-120	0.0	2.2	0.89	2.4	0.25	0.8	27.4
1-8	4/14/78	120-150	0.0	1.8	1.12	1.9	0.0	1.2	28.8

TABLE F1-12. CONTINUED

SITE	DATE	DEPTH CM	NH4-N	NO3-N	PO4-P	CL	EXT N	AVL P	H2O
			------SOLUBLE PPM-----				--SOIL PPM--		%
2-1	4/12/78	0-1	0.0	19.4	0.88	7.5	3.95	17.9	24.9
2-1	4/12/78	1-7.5	0.0	1.5	0.77	1.8	0.95	10.4	25.6
2-1	4/12/78	7.5-15	0.0	16.0	1.05	2.5	0.0	23.6	27.9
2-1	4/12/78	15-30	0.0	15.8	0.91	3.6	0.0	21.1	29.8
2-1	4/12/78	30-45	0.05	11.4	0.51	2.5	0.0	6.3	28.4
2-1	4/12/78	45-60	0.0	14.2	0.55	2.8	0.0	4.7	34.1
2-1	4/12/78	60-90	0.0	10.3	1.27	8.8	0.0	3.5	29.8
2-1	4/12/78	90-120	0.0	9.1	0.75	5.3	0.0	4.5	29.4
2-1	4/12/78	120-150	0.0	8.0	0.89	4.5	0.0	5.6	30.2
2-2	4/12/78	0-1	0.25	11.4	1.11	2.5	0.55	5.2	14.5
2-2	4/12/78	1-7.5	0.0	10.0	0.61	1.8	0.20	4.2	24.4
2-2	4/12/78	7.5-15	0.0	10.1	0.73	2.5	0.0	9.1	26.0
2-2	4/12/78	15-30	0.0	6.0	0.09	2.4	0.85	1.8	28.6
2-2	4/12/78	30-45	0.10	3.3	0.01	3.2	10.70	4.6	29.2
2-2	4/12/78	45-60	0.0	3.5	0.39	3.3	0.60	24.2	25.9
2-2	4/12/78	60-90	0.0	5.5	0.19	6.7	0.55	29.4	26.4
2-2	4/12/78	90-120	0.0	5.8	0.52	9.5	0.10	23.0	24.0
2-2	4/12/78	120-150	0.45	2.0	1.04	4.5	0.50	19.7	25.2
2-3	4/12/78	0-1	0.10	10.6	0.70	1.3	1.05	3.2	23.0
2-3	4/12/78	1-7.5	0.05	9.0	0.76	1.1	0.40	4.9	27.4
2-3	4/12/78	7.5-15	0.05	17.0	1.17	2.0	0.50	13.6	32.7
2-3	4/12/78	15-30	0.0	10.6	1.00	3.0	0.0	20.2	30.3
2-3	4/12/78	30-45	0.0	8.2	1.11	1.8	0.0	0.6	28.9
2-3	4/12/78	45-60	0.0	6.0	1.13	1.4	0.05	0.4	28.7
2-3	4/12/78	60-90	0.0	5.0	0.58	2.9	0.30	1.8	27.8
2-3	4/12/78	90-120	0.0	1.3	0.66	4.1	0.10	2.9	27.5
2-3	4/12/78	120-150	0.0	1.5	0.38	3.1	0.05	1.6	28.3
2-4	4/12/78	0-1	0.10	7.0	0.91	1.1	0.65	14.6	14.0
2-4	4/12/78	1-7.5	0.0	5.0	0.82	1.0	0.20	10.5	24.6
2-4	4/12/78	7.5-15	0.0	10.1	1.10	2.1	0.20	24.5	26.3
2-4	4/12/78	15-30	0.0	8.8	0.85	1.4	0.15	11.4	27.6
2-4	4/12/78	30-45	0.0	6.3	0.38	1.9	1.25	6.8	30.0
2-4	4/12/78	45-60	0.0	6.8	0.19	2.4	0.55	17.7	30.3
2-4	4/12/78	60-90	0.0	5.9	0.20	3.3	0.50	22.3	28.8
2-4	4/12/78	90-120	0.0	3.5	0.66	8.4	0.35	15.2	28.4
2-4	4/12/78	120-150	0.0	3.1	0.95	6.5	0.10	13.0	28.1
2-5	4/12/78	0-1	0.0	20.2	0.39	4.2	0.15	4.2	15.3
2-5	4/12/78	1-7.5	0.0	11.0	1.10	2.4	0.20	8.2	24.2
2-5	4/12/78	7.5-15	0.0	7.8	0.80	2.6	0.15	9.3	17.8
2-5	4/12/78	15-30	0.0	6.8	0.42	3.1	0.25	2.3	27.8
2-5	4/12/78	30-45	0.10	7.1	0.11	3.9	0.45	3.4	27.7
2-5	4/12/78	45-60	0.0	6.9	0.10	6.1	0.95	20.4	20.4
2-5	4/12/78	60-90	0.05	4.5	0.35	5.7	1.15	27.3	27.6
2-5	4/12/78	90-120	0.0	1.9	0.71	2.8	0.45	26.1	30.5
2-5	4/12/78	120-150	0.0	0.9	0.86	1.4	0.15	20.4	30.0
2-6	4/12/78	0-1	0.05	28.4	0.44	0.8	0.50	11.0	16.7
2-6	4/12/78	1-7.5	0.0	9.1	0.73	0.8	0.25	5.1	27.8
2-6	4/12/78	7.5-15	0.0	10.6	0.95	0.8	0.10	13.9	29.6
2-6	4/12/78	15-30	0.0	10.6	1.56	1.3	0.05	25.4	35.7
2-6	4/12/78	30-45	0.0	8.8	1.41	1.2	0.05	3.4	33.3
2-6	4/12/78	45-60	0.0	6.4	1.38	1.5	0.05	2.7	30.6
2-6	4/12/78	60-90	0.0	4.6	0.79	2.6	0.05	2.1	27.0
2-6	4/12/78	90-120	0.0	4.0	0.66	2.6	0.10	5.1	25.4
2-6	4/12/78	120-150	0.0	3.3	1.01	2.5	0.10	12.0	27.1
2-7	4/12/78	0-1	1.10	14.2	0.50	1.7	3.20	8.6	18.4
2-7	4/12/78	1-7.5	0.0	10.0	0.74	1.6	0.40	7.1	24.7
2-7	4/12/78	7.5-15	0.0	10.7	0.85	2.1	0.40	7.3	26.8
2-7	4/12/78	15-30	0.0	11.8	0.78	2.1	0.50	12.5	29.6
2-7	4/12/78	30-45	0.05	6.7	0.61	2.2	1.60	2.8	29.4
2-7	4/12/78	45-60	0.10	6.7	0.14	2.1	1.00	2.7	31.5
2-7	4/12/78	60-90	0.10	9.6	0.14	6.5	1.55	4.4	27.6
2-7	4/12/78	90-120	0.05	5.9	0.48	3.5	0.55	37.2	26.2
2-7	4/12/78	120-150	0.05	2.7	1.11	0.8	0.35	38.7	27.3
2-8	4/12/78	0-1	0.10	8.8	0.48	0.8	1.45	6.3	18.2
2-8	4/12/78	1-7.5	0.0	6.5	0.77	1.1	0.20	6.2	24.4
2-8	4/12/78	7.5-15	0.0	10.8	0.91	1.5	0.50	22.7	27.9
2-8	4/12/78	15-30	0.0	7.4	0.06	2.3	0.15	3.0	28.4
2-8	4/12/78	30-45	0.0	5.9	0.05	2.8	1.45	16.4	27.3
2-8	4/12/78	45-60	0.0	4.9	0.18	6.7	1.70	19.7	26.7
2-8	4/12/78	60-90	0.05	4.4	0.25	10.8	0.95	27.2	27.7
2-8	4/12/78	90-120	0.0	2.2	1.14	6.7	5.90	21.4	28.8
2-8	4/12/78	120-150	0.0	0.9	1.78	3.2	0.0	18.2	30.0

TABLE F1-12. CONCLUDED

SITE	DATE	DEPTH CM	NH4-N	NO3-N	PO4-P	CL	EXT N	AVL P	H2O
			SOLUBLE PPM				SOIL PPM		%
3-1	4/12/78	0-1	2.35	33.2	9.03	59.2	1.20	66.8	48.1
3-1	4/12/78	1-7.5	0.0	10.9	6.32	4.8	0.55	62.7	31.3
3-1	4/12/78	7.5-15	0.0	7.0	1.37	3.0	1.45	10.6	28.9
3-1	4/12/78	15-30	0.05	1.5	0.72	2.6	2.10	7.2	29.0
3-1	4/12/78	30-45	0.05	0.2	1.00	2.6	1.45	3.5	28.8
3-1	4/12/78	45-60	0.05	0.2	1.13	2.7	1.55	10.5	28.8
3-1	4/12/78	60-90	0.05	0.0	0.88	3.8	1.05	23.9	27.7
3-1	4/12/78	90-120	0.0	0.0	1.21	2.5	0.25	31.1	39.7
3-1	4/12/78	120-150	0.0	0.0	1.20	1.4	0.25	27.7	19.0
3-2	4/12/78	0-1	1.95	19.0	7.61	55.7	2.85	45.3	44.4
3-2	4/12/78	1-7.5	0.25	4.2	0.88	3.1	3.75	8.3	28.8
3-2	4/12/78	7.5-15	0.05	7.2	0.69	3.2	0.50	2.4	28.8
3-2	4/12/78	15-30	0.05	2.2	0.64	3.2	1.65	1.7	30.3
3-2	4/12/78	30-45	0.05	0.6	0.64	1.7	1.35	1.4	30.3
3-2	4/12/78	45-60	0.05	0.0	0.31	1.3	1.10	2.3	29.8
3-2	4/12/78	60-90	0.0	0.3	0.35	2.4	0.90	10.3	26.6
3-2	4/12/78	90-120	0.05	0.0	0.92	1.4	0.40	23.2	25.2
3-2	4/12/78	120-150	0.05	0.0	0.77	1.3	0.15	14.8	24.1
3-3	4/12/78	0-1	0.40	13.2	2.69	48.5	5.30	34.3	35.8
3-3	4/12/78	1-7.5	0.20	3.9	0.65	3.8	3.00	6.0	25.7
3-3	4/12/78	7.5-15	0.20	1.1	0.45	2.4	2.75	3.4	27.6
3-3	4/12/78	15-30	0.05	1.9	0.42	1.4	0.25	2.9	29.0
3-3	4/12/78	30-45	0.10	0.0	0.38	1.3	0.95	4.7	28.1
3-3	4/12/78	45-60	0.0	0.9	0.65	2.2	0.35	7.3	27.7
3-3	4/12/78	60-90	0.10	0.0	0.02	1.6	0.40	5.9	30.2
3-3	4/12/78	90-120	0.15	0.6	0.01	2.3	0.30	0.4	23.5
3-3	4/12/78	120-150	0.0	0.0	0.02	1.1	0.0	1.4	23.2
3-4	4/12/78	0-1	0.05	3.5	1.85	33.0	1.60	35.7	55.0
3-4	4/12/78	1-7.5	0.0	8.1	0.58	5.9	0.40	3.3	37.0
3-4	4/12/78	7.5-15	0.0	5.9	0.59	3.4	0.45	2.8	32.3
3-4	4/12/78	15-30	0.0	3.3	0.73	2.4	0.60	3.9	38.2
3-4	4/12/78	30-45	0.05	2.6	1.01	2.7	0.40	4.9	37.7
3-4	4/12/78	45-60	0.05	1.4	1.36	4.3	0.40	2.4	33.7
3-4	4/12/78	60-90	0.05	0.7	1.36	3.4	0.30	1.7	33.7
3-4	4/12/78	90-120	0.05	3.8	0.86	5.0	0.25	2.5	38.1
3-4	4/12/78	120-150	0.05	1.3	1.16	4.0	0.30	2.7	34.6
3-5	4/12/78	0-1	0.10	25.6	1.99	22.9	1.00	42.0	36.4
3-5	4/12/78	1-7.5	0.05	5.9	1.02	10.0	0.0	8.0	26.3
3-5	4/12/78	7.5-15	0.0	2.6	0.70	7.7	0.20	9.6	22.7
3-5	4/12/78	15-30	0.05	0.9	0.69	4.8	0.50	17.5	26.4
3-5	4/12/78	30-45	0.05	0.4	0.96	3.6	0.30	18.8	26.2
3-5	4/12/78	45-60	0.05	0.1	1.44	3.4	0.25	18.2	24.5
3-5	4/12/78	60-90	0.0	0.2	1.55	2.4	0.0	19.6	23.5
3-5	4/12/78	90-120	0.0	0.2	1.66	3.0	0.0	19.8	21.1
3-5	4/12/78	120-150	0.0	0.0	1.76	2.6	0.15	20.0	24.6

SITE	DATE	NH4-N	NO3-N	PO4-P	CL	EXT N	AVL P	H2O
		KG/HA						CM
1-1	4/14/78	0.0	67.8	14.4	266.0	9.0	281.8	50.7
1-2	4/14/78	0.0	86.5	9.9	115.4	18.2	48.8	58.1
1-3	4/14/78	0.0	53.3	11.5	213.1	13.5	336.7	54.1
1-4	4/14/78	0.0	48.8	8.9	127.0	16.3	413.7	54.5
1-5	4/14/78	0.0	48.8	15.1	70.9	13.6	353.1	55.2
1-6	4/14/78	0.0	34.7	12.5	180.7	8.8	263.6	55.1
1-7	4/14/78	0.2	64.9	10.7	152.7	11.5	322.0	58.6
1-8	4/14/78	0.0	101.7	22.1	121.2	3.6	84.2	57.3
2-1	4/12/78	0.1	205.8	17.0	95.7	1.2	147.3	58.1
2-2	4/12/78	2.1	96.7	9.4	104.2	27.4	358.4	50.6
2-3	4/12/78	0.1	102.1	14.4	55.6	2.8	81.9	55.6
2-4	4/12/78	0.0	105.6	11.8	87.7	7.8	302.7	55.3
2-5	4/12/78	0.4	87.1	10.7	69.3	10.3	360.5	53.4
2-6	4/12/78	0.0	117.1	19.6	40.2	1.6	155.2	55.8
2-7	4/12/78	1.2	139.8	11.4	58.6	16.5	372.8	54.2
2-8	4/12/78	0.2	80.4	15.0	107.3	34.4	367.9	55.0
3-1	4/12/78	0.8	23.9	26.5	60.7	17.6	443.3	56.7
3-2	4/12/78	1.2	19.4	13.6	45.3	17.4	219.3	53.0
3-3	4/12/78	1.7	13.8	4.3	41.3	11.5	71.3	51.8
3-4	4/12/78	0.8	38.3	20.7	80.2	7.0	58.7	70.0
3-5	4/12/78	0.3	15.5	27.6	73.5	2.9	362.1	47.0

TABLE F1-13. FOUR MILE CREEK WATERSHED SOIL CORE NUTRIENT DATA FOR 1978

SITE	DATE	DEPTH CM	NH4-N	NO3-N	PO4-P	CL	EXT N	AVL P	H2O
			------SOLUBLE PPM-----				--SOIL PPM--		%
2-1	5/15/78	0-1	2.80	39.0	1.88	7.6	17.95	23.8	17.8
2-1	5/15/78	1-7.5	5.60	55.8	1.82	18.6	0.0	28.0	27.5
2-1	5/15/78	7.5-15	0.60	31.3	0.84	21.4	1.45	20.0	28.5
2-1	5/15/78	15-30	0.05	15.8	0.79	11.0	0.35	37.6	32.2
2-2	5/15/78	0-1	2.65	26.5	1.00	7.0	19.90	20.0	16.2
2-2	5/15/78	1-7.5	8.35	48.1	1.82	13.8	42.25	28.6	25.4
2-2	5/15/78	7.5-15	0.15	25.6	1.41	16.8	0.85	33.6	33.6
2-2	5/15/78	15-30	0.0	10.7	0.35	11.0	1.15	10.0	36.7
2-3	5/15/78	0-1	8.05	20.5	4.19	8.1	43.60	37.4	16.0
2-3	5/15/78	1-7.5	8.10	42.5	5.27	11.0	54.30	39.1	25.1
2-3	5/15/78	7.5-15	0.55	28.3	1.22	14.9	0.0	35.0	26.1
2-3	5/15/78	15-30	0.05	14.0	0.40	7.0	0.35	7.1	28.0

SITE	DATE	NH4-N	NO3-N	PO4-P	CL	EXT N	AVL P	H2O
		----------KG/HA----------						CM
2-1	5/15/78	5.7	110.1	4.0	57.3	3.8	114.4	11.2
2-2	5/15/78	7.5	87.5	3.6	48.7	40.6	76.6	12.3
2-3	5/15/78	8.3	90.8	6.8	37.4	50.9	83.4	9.9

TABLE F1-14. FOUR MILE CREEK WATERSHED SOIL CORE NUTRIENT DATA FOR 1978

SITE	DATE	DEPTH CM	NH4-N	NO3-N	PO4-P	CL	EXT N	AVL P	H2O
			------SOLUBLE PPM-----				--SOIL PPM--		%
1-1	6/12/78	0-1	0.45	43.6	0.25	5.8	2.45	9.5	5.0
1-1	6/12/78	1-7.5	0.0	8.4	0.86	2.7	0.70	8.6	23.3
1-1	6/12/78	7.5-15	0.10	8.2	1.05	3.8	1.40	38.2	24.2
1-1	6/12/78	15-30	0.05	5.8	0.68	5.6	1.05	13.9	29.4
1-2	6/12/78	0-1	0.10	26.2	0.37	5.5	1.65	14.1	5.3
1-2	6/12/78	1-7.5	0.0	8.1	0.45	3.8	0.55	9.1	22.4
1-2	6/12/78	7.5-15	0.0	7.1	1.99	5.0	0.35	15.4	26.8
1-2	6/12/78	15-30	0.0	3.8	0.59	7.2	0.75	9.5	26.0
1-3	6/12/78	0-1	0.20	40.5	0.43	7.8	2.40	9.8	5.8
1-3	6/12/78	1-7.5	0.0	10.4	1.01	4.8	0.65	10.3	23.2
1-3	6/12/78	7.5-15	0.0	8.8	1.55	7.7	0.85	25.7	24.1
1-3	6/12/78	15-30	0.0	5.9	0.77	6.3	1.05	4.0	26.8
2-1	6/12/78	0-1	1.85	316.1	0.31	37.1	3.95	18.1	6.4
2-1	6/12/78	1-7.5	0.0	54.6	1.46	7.1	0.25	20.7	22.2
2-1	6/12/78	7.5-15	0.0	42.9	1.29	9.7	0.35	17.2	26.0
2-1	6/12/78	15-30	0.0	24.0	0.82	7.0	0.85	8.9	28.7
2-2	6/12/78	0-1	2.85	226.4	0.13	21.5	11.35	21.6	4.8
2-2	6/12/78	1-7.5	0.10	58.3	0.83	9.0	0.75	20.4	21.3
2-2	6/12/78	7.5-15	0.0	38.8	0.48	9.0	0.50	13.8	23.4
2-2	6/12/78	15-30	0.0	12.4	0.46	7.2	0.80	9.3	25.8
2-3	6/12/78	0-1	5.05	468.1	0.14	46.0	18.25	19.6	6.8
2-3	6/12/78	1-7.5	0.20	58.2	1.85	11.6	2.35	27.2	20.4
2-3	6/12/78	7.5-15	0.05	32.8	0.85	11.0	1.95	13.9	23.7
2-3	6/12/78	15-30	0.10	15.0	0.78	7.7	1.75	13.8	25.9

SITE	DATE	NH4-N	NO3-N	PO4-P	CL	EXT N	AVL P	H2O
		----------KG/HA----------						CM
1-1	6/12/78	0.2	30.1	3.0	16.9	4.1	70.3	9.7
1-2	6/12/78	0.0	23.2	3.4	21.9	2.3	41.2	9.3
1-3	6/12/78	0.0	32.2	3.8	23.7	3.5	41.6	9.3
2-1	6/12/78	0.2	163.1	4.0	32.1	2.5	52.1	9.7
2-2	6/12/78	0.4	131.8	2.0	31.7	3.7	49.8	8.8
2-3	6/12/78	0.9	155.0	3.8	39.2	8.9	63.7	8.8

TABLE F1-15. FOUR MILE CREEK WATERSHED SOIL CORE NUTRIENT DATA FOR 1978

SITE	DATE	DEPTH CM	NH4-N	NO3-N	PO4-P	CL	EXT N	AVL P	H2O
			SOLUBLE PPM				SOIL PPM		%
1-1	7/ 7/78	0-1	0.05	8.1	0.95	4.6	0.80	15.6	25.5
1-1	7/ 7/78	1-7.5	0.0	13.2	0.94	4.3	0.80	15.5	26.6
1-1	7/ 7/78	7.5-15	0.05	8.8	1.54	5.8	1.75	21.9	25.2
1-1	7/ 7/78	15-30	0.05	6.9	0.82	9.3	1.70	9.4	25.3
1-2	7/ 7/78	0-1	0.05	4.0	0.81	1.9	0.60	12.3	25.5
1-2	7/ 7/78	1-7.5	0.0	11.1	0.96	2.8	0.80	14.4	29.2
1-2	7/ 7/78	7.5-15	0.0	6.7	1.61	5.3	1.10	33.0	25.5
1-2	7/ 7/78	15-30	0.0	2.5	0.60	7.8	1.05	8.2	24.3
1-3	7/ 7/78	0-1	0.05	6.7	0.63	2.8	0.70	13.9	26.5
1-3	7/ 7/78	1-7.5	0.05	17.5	0.55	3.2	1.80	11.5	26.5
1-3	7/ 7/78	7.5-15	0.25	12.1	1.11	4.1	2.60	21.9	23.6
1-3	7/ 7/78	15-30	0.10	49.5	0.50	5.6	2.15	7.6	23.6
2-1	7/ 7/78	0-1	0.0	12.7	1.43	4.3	0.65	21.8	28.1
2-1	7/ 7/78	1-7.5	0.05	16.6	1.05	3.1	0.70	20.7	27.2
2-1	7/ 7/78	7.5-15	0.05	11.8	0.75	2.6	1.45	16.3	22.6
2-1	7/ 7/78	15-30	0.0	6.7	0.74	3.3	1.25	12.1	23.1
2-2	7/ 7/78	0-1	0.0	8.9	1.02	4.9	0.55	31.5	24.6
2-2	7/ 7/78	1-7.5	0.0	35.2	0.97	3.1	0.60	32.0	25.2
2-2	7/ 7/78	7.5-15	0.0	21.8	0.77	3.4	1.80	17.2	21.2
2-2	7/ 7/78	15-30	0.05	12.9	0.42	3.1	1.85	9.3	21.6
2-3	7/ 7/78	0-1	0.05	12.7	1.42	3.7	0.95	25.6	22.9
2-3	7/ 7/78	1-7.5	0.05	30.5	1.24	3.3	0.85	22.5	24.1
2-3	7/ 7/78	7.5-15	0.05	20.0	0.91	2.9	1.80	18.6	20.3
2-3	7/ 7/78	15-30	0.0	10.5	1.76	2.9	0.80	25.0	22.2

SITE	DATE	NH4-N	NO3-N	PO4-P	CL	EXT N	AVL P	H2O
		KG/HA						CM
1-1	7/ 7/78	0.1	33.2	3.9	27.0	5.6	52.9	9.6
1-2	7/ 7/78	0.0	20.8	3.5	22.1	3.7	60.0	9.6
1-3	7/ 7/78	0.5	118.4	2.5	17.3	8.0	46.1	9.1
2-1	7/ 7/78	0.1	39.0	3.1	11.8	4.3	57.4	9.0
2-2	7/ 7/78	0.1	75.3	2.4	12.1	5.7	63.7	8.4
2-3	7/ 7/78	0.1	65.5	5.3	11.5	4.0	85.4	8.3

TABLE F1-16. FOUR MILE CREEK WATERSHED SOIL CORE NUTRIENT DATA FOR 1978

SITE	DATE	DEPTH CM	NH4-N	NO3-N	PO4-P	CL	EXT N	AVL P	H2O
			------SOLUBLE PPM-----				--SOIL PPM--		%
1-1	7/27/78	0-1	0.10	6.3	0.63	4.8	0.15	18.6	23.3
1-1	7/27/78	1-7.5	0.15	10.3	0.47	9.3	0.40	12.4	25.1
1-1	7/27/78	7.5-15	0.25	10.3	0.63	10.3	0.25	8.6	23.8
1-1	7/27/78	15-30	0.25	3.3	0.03	10.9	0.35	6.6	25.1
1-1	7/27/78	30-45	0.20	2.1	0.02	15.5	0.35	6.7	23.7
1-1	7/27/78	45-60	0.20	3.1	0.43	11.7	0.20	10.2	22.9
1-1	7/27/78	60-90	0.15	1.9	0.08	11.0	0.45	12.4	23.6
1-1	7/27/78	90-120	0.15	1.3	0.85	6.4	0.15	10.0	24.5
1-1	7/27/78	120-150	0.05	1.1	0.85	5.8	0.0	7.0	25.4
1-2	7/27/78	0-1	0.15	11.1	1.32	3.4	0.45	16.3	28.6
1-2	7/27/78	1-7.5	0.25	11.3	0.55	5.9	0.55	24.2	28.2
1-2	7/27/78	7.5-15	0.25	13.3	0.31	9.8	0.35	6.1	28.1
1-2	7/27/78	15-30	0.60	9.3	0.76	0.0	0.25	1.9	28.4
1-2	7/27/78	30-45	0.65	6.3	0.30	0.0	0.25	1.5	24.7
1-2	7/27/78	45-60	0.15	4.4	0.05	6.4	0.20	1.4	22.8
1-2	7/27/78	60-90	0.05	3.3	0.06	14.1	0.15	1.9	25.0
1-2	7/27/78	90-120	0.50	2.6	0.28	4.9	0.20	6.2	27.5
1-2	7/27/78	120-150	0.35	2.5	0.66	11.5	0.10	7.6	32.9
1-3	7/27/78	0-1	0.35	9.7	0.41	7.4	0.20	15.2	23.8
1-3	7/27/78	1-7.5	0.35	10.3	0.47	11.3	0.20	5.6	23.5
1-3	7/27/78	7.5-15	0.25	10.7	0.52	11.6	0.15	4.1	24.6
1-3	7/27/78	15-30	0.15	6.5	0.06	10.6	0.15	1.7	25.1
1-3	7/27/78	30-45	0.15	5.4	0.02	13.7	0.35	5.0	24.5
1-3	7/27/78	45-60	0.40	4.7	0.04	14.5	0.60	14.2	24.2
1-3	7/27/78	60-90	0.35	3.3	0.14	9.9	0.40	17.6	24.7
1-3	7/27/78	90-120	0.20	2.1	0.61	11.3	0.35	18.9	26.6
1-3	7/27/78	120-150	0.25	0.5	0.88	7.1	0.10	14.2	29.8
1-4	7/27/78	0-1	0.15	9.9	0.37	3.6	0.10	5.5	25.1
1-4	7/27/78	1-7.5	0.30	8.9	0.54	8.0	0.10	4.8	23.8
1-4	7/27/78	7.5-15	0.25	7.4	0.49	10.8	0.20	7.0	24.7
1-4	7/27/78	15-30	0.15	3.6	0.21	4.9	0.25	1.3	23.1
1-4	7/27/78	30-45	0.15	3.9	0.13	6.3	0.30	1.1	22.7
1-4	7/27/78	45-60	0.10	4.8	0.08	6.8	0.50	11.9	23.5
1-4	7/27/78	60-90	0.10	7.0	0.11	6.5	0.75	27.3	23.4
1-4	7/27/78	90-120	0.30	6.6	0.34	6.3	0.25	22.2	26.7
1-4	7/27/78	120-150	0.25	3.6	0.61	12.6	0.10	17.5	27.6
1-5	7/27/78	0-1	0.20	8.9	0.71	4.9	0.05	34.3	26.4
1-5	7/27/78	1-7.5	0.30	11.5	1.71	7.1	0.15	31.8	24.9
1-5	7/27/78	7.5-15	0.30	6.0	0.51	9.6	0.05	3.5	23.8
1-5	7/27/78	15-30	0.25	3.2	0.29	6.0	0.30	1.8	23.2
1-5	7/27/78	30-45	0.10	2.1	0.20	8.3	0.60	1.5	23.3
1-5	7/27/78	45-60	0.10	1.6	0.10	8.8	0.75	24.3	24.4
1-5	7/27/78	60-90	0.10	2.4	0.22	7.1	0.35	33.3	25.2
1-5	7/27/78	90-120	0.15	5.6	0.20	12.3	0.25	14.1	26.2
1-5	7/27/78	120-150	0.15	5.5	0.53	11.3	0.10	18.4	29.1
1-6	7/27/78	0-1	0.20	7.3	0.37	6.5	0.05	6.4	24.9
1-6	7/27/78	1-7.5	0.20	6.4	0.47	10.3	0.05	3.8	25.4
1-6	7/27/78	7.5-15	0.20	6.1	0.52	15.0	0.15	13.3	25.7
1-6	7/27/78	15-30	0.15	1.7	0.31	13.5	0.65	5.8	25.4
1-6	7/27/78	30-45	0.20	1.4	0.29	11.7	0.45	4.5	25.2
1-6	7/27/78	45-60	0.20	1.2	0.31	10.7	0.45	4.3	25.4
1-6	7/27/78	60-90	0.20	1.0	0.60	13.1	0.25	3.6	26.0
1-6	7/27/78	90-120	0.05	0.7	0.12	5.0	0.15	0.7	27.7
1-6	7/27/78	120-150	0.0	0.6	0.12	5.3	0.10	0.9	28.7
1-7	7/27/78	0-1	0.10	8.5	0.61	12.7	0.10	14.3	28.0
1-7	7/27/78	1-7.5	0.20	8.6	0.71	13.9	0.10	11.8	26.9
1-7	7/27/78	7.5-15	0.25	5.1	0.57	14.6	0.20	2.8	25.8
1-7	7/27/78	15-30	0.15	2.9	0.32	13.8	0.60	4.0	23.2
1-7	7/27/78	30-45	0.10	2.0	0.19	12.0	0.75	16.6	23.9
1-7	7/27/78	45-60	0.10	2.1	0.26	9.3	0.95	26.4	24.2
1-7	7/27/78	60-90	0.10	2.0	0.38	7.4	0.85	25.0	26.1
1-7	7/27/78	90-120	0.20	2.0	0.69	18.8	0.30	21.3	27.5
1-7	7/27/78	120-150	0.20	1.7	0.99	12.7	0.10	14.0	25.6
1-8	7/27/78	0-1	0.15	8.9	0.77	5.5	0.05	15.6	28.3
1-8	7/27/78	1-7.5	0.30	10.2	0.62	14.6	0.15	29.2	26.0
1-8	7/27/78	7.5-15	0.30	7.2	0.37	18.9	0.05	7.5	25.3
1-8	7/27/78	15-30	0.30	5.9	0.29	18.5	0.0	3.4	27.8
1-8	7/27/78	30-45	1.00	8.2	0.63	60.6	0.0	2.1	32.8
1-8	7/27/78	45-60	1.00	6.4	0.46	42.6	0.0	2.9	28.7
1-8	7/27/78	60-90	1.20	4.8	0.45	45.3	0.0	2.1	28.2
1-8	7/27/78	90-120	0.65	3.0	0.32	16.7	0.0	4.0	30.5
1-8	7/27/78	120-150	0.55	2.5	0.41	16.7	0.0	5.3	34.6

TABLE F1-16. CONTINUED

SITE	DATE	DEPTH CM	NH4-N	NO3-N	PO4-P	CL	EXT N	AVL P	H2O
			------SOLUBLE PPM-----				--SOIL PPM--		%
2-1	7/27/78	0-1	0.05	14.9	1.14	2.5	0.55	24.8	28.4
2-1	7/27/78	1-7.5	0.0	11.1	0.79	1.9	0.65	19.2	28.1
2-1	7/27/78	7.5-15	0.0	9.0	0.97	1.1	0.55	7.9	26.1
2-1	7/27/78	15-30	0.0	6.9	0.97	3.1	0.15	7.4	24.4
2-1	7/27/78	30-45	0.0	11.3	0.72	2.3	0.40	3.0	25.5
2-1	7/27/78	45-60	0.0	7.3	1.84	3.0	0.25	2.9	24.7
2-1	7/27/78	60-90	0.0	4.4	2.51	3.9	0.30	2.6	26.4
2-1	7/27/78	90-120	0.0	2.9	2.53	5.5	0.25	2.7	30.0
2-1	7/27/78	120-150	0.0	2.3	0.64	4.8	0.40	1.9	33.2
2-2	7/27/78	0-1	0.0	8.7	0.37	1.5	0.65	11.6	30.8
2-2	7/27/78	1-7.5	0.0	4.0	0.44	1.9	0.70	10.7	26.3
2-2	7/27/78	7.5-15	0.0	6.0	0.38	2.6	1.00	11.4	25.9
2-2	7/27/78	15-30	0.0	1.6	0.12	1.5	1.00	8.8	23.3
2-2	7/27/78	30-45	0.0	1.0	0.10	2.0	0.95	20.7	21.5
2-2	7/27/78	45-60	0.0	0.8	0.13	2.7	0.95	27.6	21.7
2-2	7/27/78	60-90	0.0	1.0	0.33	3.2	0.60	24.1	22.0
2-2	7/27/78	90-120	0.0	2.5	0.44	36.3	0.25	18.3	26.2
2-2	7/27/78	120-150	0.0	2.9	0.65	29.1	0.25	15.4	27.7
2-3	7/27/78	0-1	0.0	10.9	0.65	5.5	0.60	14.3	31.9
2-3	7/27/78	1-7.5	0.0	8.6	0.48	6.4	0.50	9.4	32.5
2-3	7/27/78	7.5-15	0.0	7.4	0.39	21.5	0.30	4.6	30.0
2-3	7/27/78	15-30	0.0	5.0	0.48	2.0	0.35	3.6	29.5
2-3	7/27/78	30-45	0.0	3.2	0.59	13.6	0.30	0.9	26.1
2-3	7/27/78	45-60	0.0	2.7	0.46	20.9	0.40	0.6	24.4
2-3	7/27/78	60-90	0.0	3.5	0.35	1.7	0.15	0.2	28.4
2-3	7/27/79	90-120	0.0	1.6	0.32	2.3	0.25	0.8	28.1
2-3	7/27/78	120-150	0.0	1.7	0.11	2.4	0.15	1.0	28.1
2-4	7/27/78	0-1	0.0	11.9	0.79	2.0	0.60	20.5	26.5
2-4	7/27/78	1-7.5	0.0	6.7	0.60	1.3	0.60	14.4	25.3
2-4	7/27/78	7.5-15	0.0	6.3	0.51	2.1	0.70	6.5	23.6
2-4	7/27/78	15-30	0.0	1.6	0.34	1.4	0.45	4.0	25.1
2-4	7/27/78	30-45	0.0	0.5	0.52	1.0	0.60	10.7	23.0
2-4	7/27/78	45-60	0.0	0.7	0.24	1.1	0.50	12.7	19.5
2-4	7/27/78	60-90	0.0	1.0	0.33	1.3	0.20	16.4	21.8
2-4	7/27/78	90-120	0.0	2.2	1.03	3.5	0.0	14.1	25.4
2-4	7/27/78	120-150	0.0	2.0	0.37	7.3	0.20	5.8	26.3
2-5	7/27/78	0-1	0.0	10.9	1.26	2.2	0.55	24.3	28.0
2-5	7/27/78	1-7.5	0.0	7.0	1.04	1.3	0.35	16.3	21.2
2-5	7/27/78	7.5-15	0.0	7.3	3.04	1.6	0.0	39.4	27.1
2-5	7/27/78	15-30	0.0	5.6	0.49	1.6	0.70	3.8	25.4
2-5	7/27/78	30-45	0.0	3.0	0.19	1.0	1.05	3.3	23.5
2-5	7/27/78	45-60	0.0	1.7	0.05	0.8	0.95	17.0	23.0
2-5	7/27/78	60-90	0.0	2.4	0.12	2.1	0.55	22.5	23.6
2-5	7/27/78	90-120	0.0	4.3	0.25	8.2	0.40	20.0	23.7
2-5	7/27/78	120-150	0.0	3.3	0.61	7.2	0.25	16.4	28.8
2-6	7/27/78	0-1	0.15	20.2	1.03	5.4	1.40	14.3	23.3
2-6	7/27/78	1-7.5	0.05	23.1	1.23	1.8	0.55	24.6	25.2
2-6	7/27/78	7.5-15	0.0	57.6	0.22	1.8	0.55	8.7	24.9
2-6	7/27/78	15-30	0.0	46.9	0.21	2.1	0.50	8.8	24.9
2-6	7/27/78	30-45	0.0	8.5	0.36	1.6	0.90	4.7	22.3
2-6	7/27/78	45-60	0.0	4.1	0.22	1.3	1.35	4.0	22.6
2-6	7/27/78	60-90	0.0	3.4	0.09	1.4	0.45	20.0	24.8
2-6	7/27/78	90-120	0.0	4.8	0.36	3.7	0.50	35.1	26.1
2-6	7/27/78	120-150	0.0	5.1	0.52	4.7	0.40	20.4	28.5
2-7	7/27/78	0-1	0.0	10.8	0.77	1.3	0.60	26.3	30.3
2-7	7/27/78	1-7.5	0.0	6.1	2.22	1.3	0.55	27.2	28.5
2-7	7/27/78	7.5-15	0.0	4.9	0.64	2.0	0.40	6.5	30.2
2-7	7/27/78	15-30	0.10	4.2	0.77	25.3	0.25	3.1	27.5
2-7	7/27/78	30-45	0.0	3.2	0.88	1.3	0.10	2.7	23.0
2-7	7/27/78	45-60	0.0	1.9	0.74	1.3	0.15	1.6	23.1
2-7	7/27/78	60-90	0.0	2.1	0.41	1.5	0.20	1.6	23.3
2-7	7/27/78	90-120	0.0	2.6	0.38	1.6	0.25	4.7	25.6
2-7	7/27/78	120-150	0.0	2.5	0.50	2.6	0.20	7.5	27.8
2-8	7/27/78	0-1	0.0	7.8	0.81	2.3	0.60	23.8	28.0
2-8	7/27/78	1-7.5	0.0	6.7	1.04	2.3	0.65	20.8	27.1
2-8	7/27/78	7.5-15	0.0	4.6	0.60	2.8	0.45	6.4	25.9
2-8	7/27/78	15-30	0.0	3.0	0.18	2.1	0.65	4.1	24.8
2-8	7/27/78	30-45	0.0	2.1	0.05	1.9	1.00	9.9	22.8
2-8	7/27/78	45-60	0.0	1.4	0.01	1.6	1.25	24.2	22.0
2-8	7/27/78	60-90	0.0	1.4	0.28	1.8	0.90	27.5	24.0
2-8	7/27/78	90-120	0.0	0.0	0.59	5.9	0.30	24.8	27.9
2-8	7/27/78	120-150	0.0	4.2	0.63	9.9	0.30	17.0	30.9

TABLE F1-16. CONCLUDED

SITE	DATE	DEPTH CM	NH4-N	NO3-N	PO4-P	CL	EXT N	AVL P	H2O
			------SOLUBLE PPM-----				--SOIL PPM--		X
3-1	7/31/78	0-1	0.30	20.8	7.62	26.4	1.15	44.0	14.4
3-1	7/31/78	1-7.5	0.20	10.0	1.35	10.7	0.30	15.4	16.2
3-1	7/31/78	7.5-15	0.30	5.2	0.44	8.2	0.30	7.4	16.6
3-1	7/31/78	15-30	0.0	2.1	0.31	2.2	0.15	6.1	15.9
3-1	7/31/78	30-45	0.05	0.6	0.25	1.7	0.70	6.0	19.0
3-1	7/31/78	45-60	0.10	0.8	0.25	1.4	1.95	18.8	18.1
3-1	7/31/78	60-90	0.10	0.5	0.32	2.5	0.60	28.1	22.9
3-1	7/31/78	90-120	0.05	0.1	0.51	2.8	0.25	25.0	25.8
3-1	7/31/78	120-150	0.0	0.0	1.33	5.6	0.05	18.0	27.6
3-2	7/31/78	0-1	1.10	26.3	3.04	35.7	3.80	34.5	15.8
3-2	7/31/78	1-7.5	0.35	7.2	0.42	16.2	0.70	4.7	17.1
3-2	7/31/78	7.5-15	0.15	3.8	0.32	9.9	0.20	1.9	19.4
3-2	7/31/78	15-30	0.10	2.3	0.16	5.7	0.30	1.4	16.0
3-2	7/31/78	30-45	0.05	1.7	0.21	6.3	1.25	3.0	16.0
3-2	7/31/78	45-60	0.05	0.9	3.18	4.6	1.40	14.4	19.3
3-2	7/31/78	60-90	0.05	0.2	0.32	6.4	0.55	33.3	20.9
3-2	7/31/78	90-120	0.05	0.3	0.44	5.8	0.40	24.3	24.6
3-2	7/31/78	120-150	0.10	0.3	0.76	4.7	0.20	20.0	36.9
3-3	7/31/78	0-1	1.00	35.6	4.22	45.2	1.75	35.1	14.4
3-3	7/31/78	1-7.5	0.20	7.8	0.56	17.8	0.60	5.4	15.5
3-3	7/31/78	7.5-15	0.15	1.1	0.32	13.4	1.40	5.5	16.0
3-3	7/31/78	15-30	0.10	0.1	0.34	7.8	0.10	5.6	11.5
3-3	7/31/78	30-45	0.0	0.3	0.11	1.3	0.30	2.5	13.5
3-3	7/31/78	45-60	0.0	0.1	0.14	2.3	0.15	1.9	17.7
3-3	7/31/78	60-90	0.0	0.2	0.14	1.3	0.20	1.8	19.4
3-3	7/31/78	90-120	0.05	0.0	0.13	1.1	0.05	3.8	21.3
3-3	7/31/78	120-150	0.0	0.1	0.13	12.7	0.10	1.4	21.9
3-4	7/31/78	0-1	0.65	94.9	17.57	42.3	2.75	55.1	32.6
3-4	7/31/78	1-7.5	0.15	29.6	3.65	12.7	0.35	9.0	22.9
3-4	7/31/78	7.5-15	0.15	9.1	0.39	9.7	0.15	4.3	23.2
3-4	7/31/78	15-30	0.30	10.6	0.51	16.2	0.20	4.8	26.4
3-4	7/31/78	30-45	0.55	7.0	0.54	16.6	0.05	4.5	24.8
3-4	7/31/78	45-60	0.60	3.9	0.41	22.8	0.05	3.9	25.0
3-4	7/31/78	60-90	0.45	2.7	0.43	16.3	0.0	3.6	25.6
3-4	7/31/78	90-120	0.35	1.4	0.84	17.5	0.15	7.3	29.0
3-4	7/31/78	120-150	0.30	0.9	0.87	15.0	0.45	4.3	30.6
3-5	7/31/78	0-1	0.40	35.7	5.13	32.9	1.55	47.1	14.0
3-5	7/31/78	1-7.5	0.10	20.6	0.29	12.8	1.10	5.3	14.3
3-5	7/31/78	7.5-15	0.20	3.8	0.36	7.5	1.65	7.3	14.0
3-5	7/31/78	15-30	0.10	1.4	0.35	4.4	2.95	34.1	13.3
3-5	7/31/78	30-45	0.05	1.0	0.58	2.1	0.65	8.8	16.0
3-5	7/31/78	45-60	0.05	0.3	0.70	2.3	0.80	13.5	19.6
3-5	7/31/78	60-90	0.05	0.0	0.63	2.8	0.35	14.7	23.0
3-5	7/31/78	90-120	0.05	0.7	0.34	3.0	0.20	20.5	24.9
3-5	7/31/78	120-150	0.05	0.1	0.50	4.6	0.15	16.7	26.4

SITE	DATE	NH4-N	NO3-N	PO4-P	CL	EXT N	AVL P	H2O
		----------KG/HA----------						CM
1-1	7/27/78	3.0	52.3	9.3	182.6	4.6	181.9	47.5
1-2	7/27/78	6.7	94.4	7.1	148.8	3.9	100.0	53.8
1-3	7/27/78	5.1	74.6	7.8	206.9	5.8	252.6	50.9
1-4	7/27/78	3.9	107.8	6.1	154.0	6.6	306.1	48.7
1-5	7/27/78	3.0	84.3	7.0	182.4	6.0	347.7	50.2
1-6	7/27/78	2.4	29.6	6.0	183.9	5.1	66.4	52.1
1-7	7/27/78	3.1	49.4	11.0	249.2	9.5	343.3	50.0
1-8	7/27/78	14.4	96.2	8.3	571.4	0.2	95.0	59.0
2-1	7/27/78	0.0	105.7	30.9	76.1	6.4	80.2	55.1
2-2	7/27/78	0.0	42.3	7.2	294.1	11.4	358.7	47.9
2-3	7/27/78	0.0	63.0	6.9	121.1	4.9	31.2	54.8
2-4	7/27/78	0.0	39.6	10.1	59.5	5.7	216.5	46.8
2-5	7/27/78	0.0	73.9	9.3	80.5	10.2	334.4	48.6
2-6	7/27/78	0.1	240.4	6.8	53.2	11.7	365.8	49.6
2-7	7/27/78	0.2	57.4	12.2	77.9	4.4	101.6	50.1
2-8	7/27/78	0.0	46.1	8.0	87.3	12.4	374.4	51.3
3-1	7/31/78	1.4	25.4	12.9	74.7	9.5	367.8	43.7
3-2	7/31/78	1.8	25.8	14.0	126.8	11.4	355.7	46.3
3-3	7/31/78	0.8	15.1	4.0	117.3	4.5	61.6	36.1
3-4	7/31/78	7.5	106.6	14.6	325.0	3.8	104.3	53.0
3-5	7/31/78	1.3	33.9	10.2	80.9	13.7	330.9	41.7

TABLE F1-17. FOUR MILE CREEK WATERSHED SOIL CORE NUTRIENT DATA FOR 1978

SITE	DATE	DEPTH CM	NH4-N	NO3-N	PO4-P	CL	EXT N	AVL P	H2O
			------SOLUBLE PPM-----				--SOIL PPM--		%
1-1	8/29/78	0-1	0.05	5.6	1.49	2.6	0.75	31.6	27.0
1-1	8/29/78	1-7.5	0.15	9.8	0.85	5.6	2.55	15.8	26.8
1-1	8/29/78	7.5-15	0.20	7.0	0.72	6.0	2.20	17.2	26.8
1-1	8/29/78	15-30	0.10	4.5	0.31	6.1	2.10	4.8	28.3
1-2	8/29/78	0-1	0.05	5.8	0.23	2.3	0.85	11.2	28.6
1-2	8/29/78	1-7.5	0.05	6.5	0.41	4.8	1.60	10.3	27.1
1-2	8/29/78	7.5-15	0.10	7.6	0.76	4.5	1.40	17.5	27.0
1-2	8/29/78	15-30	0.10	2.4	0.25	10.3	2.50	10.3	28.2
1-3	8/29/78	0-1	0.10	5.8	0.38	1.5	0.70	14.5	23.6
1-3	8/29/78	1-7.5	0.05	5.7	0.46	4.3	2.55	23.2	25.8
1-3	8/29/78	7.5-15	0.20	7.5	0.38	7.0	3.60	18.1	25.5
1-3	8/29/78	15-30	0.15	2.2	0.16	6.1	3.50	7.7	25.2
2-1	8/29/78	0-1	0.35	8.4	0.82	3.3	3.35	19.1	29.4
2-1	8/29/78	1-7.5	0.10	7.9	1.03	3.1	1.30	20.9	30.4
2-1	8/29/78	7.5-15	0.15	9.3	0.72	3.4	1.55	22.5	29.8
2-1	8/29/78	15-30	0.10	6.1	0.42	2.4	2.50	7.4	30.7
2-2	8/29/78	0-1	0.30	6.9	0.99	2.9	1.40	18.7	26.1
2-2	8/29/78	1-7.5	0.80	6.5	0.38	2.8	1.00	13.8	27.0
2-2	8/29/78	7.5-15	0.05	6.7	0.40	2.6	1.40	14.2	26.7
2-2	8/29/78	15-30	0.15	1.5	0.17	1.6	3.90	9.6	26.7
2-3	8/29/78	0-1	0.10	8.7	1.01	2.1	1.15	25.0	26.5
2-3	8/29/78	1-7.5	0.10	8.3	1.12	4.4	1.00	19.5	27.1
2-3	8/29/78	7.5-15	0.10	8.3	0.42	4.7	2.25	10.9	26.2
2-3	8/29/78	15-30	0.15	4.8	0.35	2.9	3.15	6.8	27.1

SITE	DATE	NH4-N	NO3-N	PO4-P	CL	EXT N	AVL P	H2O
		----------KG/HA----------						CM
1-1	8/29/78	0.5	23.9	2.1	22.1	8.2	41.8	10.3
1-2	8/29/78	0.3	17.9	1.6	27.8	7.4	45.6	10.4
1-3	8/29/78	0.5	16.7	1.1	21.9	12.1	52.5	9.5
2-1	8/29/78	0.4	27.8	2.4	10.7	7.5	54.6	11.4
2-2	8/29/78	1.0	15.5	1.1	8.3	9.5	44.9	10.0
2-3	8/29/78	0.5	24.7	2.1	13.9	8.9	41.9	10.1

TABLE F1-18. FOUR MILE CREEK WATERSHED SOIL CORE NUTRIENT DATA FOR 1978

SITE	DATE	DEPTH CM	NH4-N	NO3-N	PO4-P	CL	EXT N	AVL P	H2O
			------SOLUBLE PPM-----				--SOIL PPM--		%
1-1	11/ 9/78	0-1	0.50	7.0	0.52	9.4	5.50	18.4	10.5
1-1	11/ 9/78	1-7.5	0.40	7.2	0.73	13.8	3.80	20.3	22.4
1-1	11/ 9/78	7.5-15	0.30	6.1	0.65	10.5	3.50	14.1	27.6
1-1	11/ 9/78	15-30	0.20	2.7	0.24	4.5	4.15	7.6	26.8
1-1	11/ 9/78	30-45	0.35	1.9	0.25	3.9	4.10	6.9	26.5
1-1	11/ 9/78	45-60	0.30	1.8	0.19	4.0	3.50	6.3	20.4
1-1	11/ 9/78	60-90	0.35	1.1	0.24	9.3	3.80	8.9	26.7
1-1	11/ 9/78	90-120	0.20	1.0	0.85	11.3	3.55	13.7	26.6
1-1	11/ 9/78	120-150	0.20	1.6	0.73	12.5	2.50	7.0	28.2
1-2	11/ 9/78	0-1	0.70	11.6	0.55	17.9	4.85	8.6	16.1
1-2	11/ 9/78	1-7.5	0.45	10.0	0.87	11.8	3.50	14.1	25.6
1-2	11/ 9/78	7.5-15	0.25	10.3	0.85	6.0	2.85	15.3	27.8
1-2	11/ 9/78	15-30	0.70	6.7	0.43	22.5	2.95	3.9	30.6
1-2	11/ 9/78	30-45	1.15	4.9	0.51	27.6	3.40	1.2	29.0
1-2	11/ 9/78	45-60	0.90	3.1	0.51	28.8	3.75	0.3	26.1
1-2	11/ 9/78	60-90	1.10	2.6	0.33	22.0	4.15	0.4	26.0
1-2	11/ 9/78	90-120	0.25	2.3	0.21	9.9	1.35	0.8	38.2
1-2	11/ 9/78	120-150	0.15	2.0	0.31	6.6	3.25	1.6	31.9
1-3	11/ 9/78	0-1	0.30	11.4	0.44	3.8	3.90	5.8	8.2
1-3	11/ 9/78	1-7.5	0.25	8.4	0.40	5.2	2.35	5.1	21.8
1-3	11/ 9/78	7.5-15	0.25	10.3	0.44	4.7	1.40	8.8	24.8
1-3	11/ 9/78	15-30	0.25	4.6	0.29	3.2	2.00	2.3	26.4
1-3	11/ 9/78	30-45	0.05	4.0	0.19	2.4	2.30	3.7	26.3
1-3	11/ 9/78	45-60	0.05	2.3	0.28	1.5	2.00	17.8	13.4
1-3	11/ 9/78	60-90	0.10	2.4	0.20	3.8	0.70	25.3	27.4
1-3	11/ 9/78	90-120	0.0	1.6	0.35	4.3	0.30	20.2	28.6
1-3	11/ 9/78	120-150	0.10	0.8	0.52	5.5	0.30	17.7	27.5
1-4	11/ 9/78	0-1	0.20	10.2	0.29	9.5	0.70	10.2	13.3
1-4	11/ 9/78	1-7.5	0.20	7.7	0.44	4.0	1.90	9.1	23.9
1-4	11/ 9/78	7.5-15	0.20	7.1	0.40	4.7	2.15	6.4	27.4
1-4	11/ 9/78	15-30	0.05	4.3	0.22	3.0	1.95	2.2	32.2
1-4	11/ 9/78	30-45	0.05	3.2	0.10	3.9	1.45	2.7	26.8
1-4	11/ 9/78	45-60	0.05	3.0	0.03	5.0	2.50	5.6	26.6
1-4	11/ 9/78	60-90	0.25	3.4	0.14	12.7	2.90	21.3	27.1
1-4	11/ 9/78	90-120	0.50	1.8	0.13	19.4	1.40	24.5	29.6
1-4	11/ 9/78	120-150	0.15	2.3	0.31	9.6	0.30	17.2	30.5
1-5	11/ 9/78	0-1	0.60	22.1	0.54	4.9	4.40	11.7	9.5
1-5	11/ 9/78	1-7.5	0.25	10.1	0.49	12.4	1.45	9.3	25.2
1-5	11/ 9/78	7.5-15	0.25	9.4	0.73	6.5	1.95	12.0	27.8
1-5	11/ 9/78	15-30	0.25	7.0	0.29	6.8	1.95	3.0	27.5
1-5	11/ 9/78	30-45	0.90	5.6	0.06	6.8	1.45	2.8	32.2
1-5	11/ 9/78	45-60	1.25	3.3	0.18	8.8	1.45	8.1	27.4
1-5	11/ 9/78	60-90	1.55	3.2	0.08	30.7	1.45	30.8	27.5
1-5	11/ 9/78	90-120	1.25	3.9	0.11	22.6	0.65	28.1	32.3
1-5	11/ 9/78	120-150	1.40	3.8	0.23	17.5	0.35	22.8	30.0
1-6	11/ 9/78	0-1	2.25	7.2	0.22	6.3	2.00	7.9	19.8
1-6	11/ 9/78	1-7.5	1.75	7.3	0.56	4.7	1.05	9.9	24.2
1-6	11/ 9/78	7.5-15	1.75	7.9	0.43	6.0	1.20	18.5	27.4
1-6	11/ 9/78	15-30	0.10	2.8	0.19	2.6	1.80	0.8	27.8
1-6	11/ 9/78	30-45	0.10	2.2	0.20	3.5	1.15	0.7	27.6
1-6	11/ 9/78	45-60	0.10	2.1	0.12	1.4	1.15	0.9	26.8
1-6	11/ 9/78	60-90	0.15	1.7	0.11	43.5	1.15	1.2	28.2
1-6	11/ 9/78	90-120	0.35	0.8	0.03	9.8	0.40	0.9	27.8
1-6	11/ 9/78	120-150	0.10	0.4	0.04	5.4	0.50	0.8	26.9
1-7	11/ 9/78	0-1	0.40	17.5	0.38	12.8	1.80	21.0	11.7
1-7	11/ 9/78	1-7.5	0.10	11.8	0.47	12.1	0.50	10.4	24.9
1-7	11/ 9/78	7.5-15	0.15	11.8	0.32	5.1	0.70	12.7	27.2
1-7	11/ 9/78	15-30	0.10	4.6	0.47	4.1	1.45	2.5	27.7
1-7	11/ 9/78	30-45	0.0	3.5	0.10	14.4	1.30	3.9	27.5
1-7	11/ 9/78	45-60	0.05	3.0	0.07	3.4	1.55	14.6	27.2
1-7	11/ 9/78	60-90	0.05	2.1	0.04	4.5	0.90	25.9	29.6
1-7	11/ 9/78	90-120	0.05	1.4	0.19	34.4	0.45	26.8	28.4
1-7	11/ 9/78	120-150	0.05	1.1	0.32	25.3	0.30	21.9	28.8
1-8	11/ 9/78	0-1	0.75	23.2	0.39	21.5	1.50	16.1	12.4
1-8	11/ 9/78	1-7.5	0.30	14.1	0.64	10.4	0.50	28.1	24.0
1-8	11/ 9/78	7.5-15	0.30	11.1	0.84	8.3	0.65	31.6	27.5
1-8	11/ 9/78	15-30	0.30	8.6	0.33	8.6	0.80	3.9	40.7
1-8	11/ 9/78	30-45	0.45	6.3	0.42	13.8	0.90	2.8	33.3
1-8	11/ 9/78	45-60	0.50	4.9	0.57	17.8	1.40	1.4	28.2
1-8	11/ 9/78	60-90	0.40	3.5	0.38	11.8	0.85	0.7	24.5
1-8	11/ 9/78	90-120	0.50	2.0	0.33	41.6	0.55	1.5	25.9
1-8	11/ 9/78	120-150	0.45	1.3	0.47	23.4	0.55	2.7	28.3

TABLE F1-18. CONTINUED

SITE	DATE	DEPTH CM	NH4-N	NO3-N	PO4-P	CL	EXT N	AVL P	H2O
			------SOLUBLE PPM-----				--SOIL PPM--		%
2-1	11/ 9/78	0-1	0.30	10.6	0.86	9.6	0.30	29.5	17.6
2-1	11/ 9/78	1-7.5	0.25	10.3	0.88	8.9	0.10	17.4	25.2
2-1	11/ 9/78	7.5-15	0.45	8.4	0.66	11.8	0.65	6.8	26.7
2-1	11/ 9/78	15-30	0.30	6.1	0.54	11.1	0.40	5.8	29.5
2-1	11/ 9/78	30-45	0.70	6.9	0.88	18.0	0.45	3.2	30.6
2-1	11/ 9/78	45-60	1.95	4.3	1.11	24.8	0.50	2.5	29.0
2-1	11/ 9/78	60-90	1.75	3.0	1.18	22.1	0.50	1.8	28.0
2-1	11/ 9/78	90-120	0.90	2.0	0.65	14.8	0.65	2.7	27.6
2-1	11/ 9/78	120-150	2.20	2.6	0.44	13.3	0.55	2.4	29.4
2-2	11/ 9/78	0-1	0.20	5.5	0.29	14.0	0.55	12.0	13.3
2-2	11/ 9/78	1-7.5	0.20	5.6	0.55	6.9	0.55	10.1	24.8
2-2	11/ 9/78	7.5-15	0.35	4.2	0.15	12.5	0.95	5.8	27.1
2-2	11/ 9/78	15-30	0.05	2.5	0.0	2.3	0.90	0.1	28.2
2-2	11/ 9/78	30-45	0.15	2.4	0.0	4.7	1.45	12.1	29.2
2-2	11/ 9/78	45-60	0.15	2.7	0.0	4.4	1.25	21.4	26.2
2-2	11/ 9/78	60-90	0.10	4.8	0.10	6.3	0.80	25.9	26.7
2-2	11/ 9/78	90-120	0.10	1.8	0.40	6.3	0.20	22.7	26.7
2-2	11/ 9/78	120-150	0.15	1.3	0.65	8.9	0.15	13.8	25.9
2-3	11/ 9/78	0-1	0.30	11.0	0.55	14.8	0.35	9.5	18.5
2-3	11/ 9/78	1-7.5	0.30	12.8	0.55	6.9	0.40	3.3	29.6
2-3	11/ 9/78	7.5-15	2.10	10.9	0.45	22.1	0.25	5.2	29.9
2-3	11/ 9/78	15-30	0.60	5.6	0.80	12.5	0.25	1.4	31.3
2-3	11/ 9/78	30-45	0.95	2.8	1.20	20.4	1.00	0.2	30.3
2-3	11/ 9/78	45-60	0.55	1.7	0.69	14.8	0.75	0.2	29.7
2-3	11/ 9/78	60-90	0.20	1.8	0.42	7.6	0.40	0.2	28.6
2-3	11/ 9/78	90-120	0.15	0.6	0.40	5.6	0.20	0.4	26.8
2-3	11/ 9/78	120-150	0.05	1.0	0.21	3.8	0.10	0.2	30.2
2-4	11/ 9/78	0-1	0.15	9.4	1.84	11.1	0.40	22.8	15.7
2-4	11/ 9/78	1-7.5	0.30	8.3	0.66	8.3	0.50	10.0	26.2
2-4	11/ 9/78	7.5-15	0.25	9.0	0.86	7.6	0.40	21.0	26.7
2-4	11/ 9/78	15-30	0.25	5.1	0.42	14.0	1.05	3.8	28.2
2-4	11/ 9/78	30-45	0.15	3.3	0.20	3.8	1.00	12.4	27.7
2-4	11/ 9/78	45-60	0.0	2.6	0.02	1.4	1.00	12.5	27.0
2-4	11/ 9/78	60-90	0.10	2.3	0.22	3.8	0.55	13.1	27.8
2-4	11/ 9/78	90-120	0.15	1.6	0.49	9.6	0.25	13.7	27.6
2-4	11/ 9/78	120-150	0.10	2.0	0.25	10.3	0.25	12.6	27.8
2-5	11/ 9/78	0-1	0.10	8.2	0.51	23.0	0.40	13.6	16.0
2-5	11/ 9/78	1-7.5	0.20	6.8	0.97	11.8	0.25	8.6	23.5
2-5	11/ 9/78	7.5-15	0.15	8.5	0.71	8.3	1.05	5.9	24.2
2-5	11/ 9/78	15-30	0.20	3.2	0.61	8.9	1.20	2.3	27.5
2-5	11/ 9/78	30-45	0.30	1.5	0.60	11.4	1.00	4.0	28.2
2-5	11/ 9/78	45-60	0.15	1.1	0.35	6.3	1.15	11.8	28.1
2-5	11/ 9/78	60-90	0.0	1.0	0.24	5.6	0.70	13.3	28.2
2-5	11/ 9/78	90-120	0.20	1.1	0.43	8.9	0.25	11.5	30.0
2-5	11/ 9/78	120-150	0.30	1.5	0.63	13.3	0.20	13.6	31.1
2-6	11/ 9/78	0-1	0.25	8.2	0.70	23.8	0.30	18.8	15.5
2-6	11/ 9/78	1-7.5	0.30	6.6	0.57	11.8	0.25	9.8	24.9
2-6	11/ 9/78	7.5-15	0.35	8.8	0.31	14.8	1.65	7.5	30.8
2-6	11/ 9/78	15-30	0.30	2.9	0.46	6.9	1.30	1.6	27.6
2-6	11/ 9/78	30-45	0.15	1.8	0.16	2.5	1.35	1.2	26.8
2-6	11/ 9/78	45-60	0.15	2.2	0.05	4.7	1.10	1.1	26.9
2-6	11/ 9/78	60-90	0.15	4.2	0.08	7.6	1.05	9.5	27.7
2-6	11/ 9/78	90-120	0.20	2.5	0.12	7.5	1.05	31.1	28.1
2-6	11/ 9/78	120-150	0.20	1.0	0.59	8.3	0.50	25.0	29.2
2-7	11/ 9/78	0-1	0.80	10.3	0.49	14.0	3.35	7.5	21.2
2-7	11/ 9/78	1-7.5	0.40	6.5	0.67	10.3	1.95	3.1	27.6
2-7	11/ 9/78	7.5-15	0.45	6.4	0.84	10.3	0.60	2.2	27.7
2-7	11/ 9/78	15-30	0.85	6.0	1.31	18.0	0.70	1.3	30.7
2-7	11/ 9/78	30-45	1.70	3.8	0.91	27.5	0.80	1.6	28.7
2-7	11/ 9/78	45-60	1.30	2.3	1.32	20.4	0.60	0.5	24.6
2-7	11/ 9/78	60-90	0.65	2.3	0.83	8.9	0.60	0.3	24.5
2-7	11/ 9/78	90-120	0.65	1.3	0.68	7.6	0.55	1.6	26.6
2-7	11/ 9/78	120-150	0.70	1.4	0.80	18.8	0.75	3.6	29.9
2-8	11/ 9/78	0-1	0.30	2.5	1.40	17.1	0.60	10.6	18.6
2-8	11/ 9/78	1-7.5	0.35	6.5	2.29	11.1	0.65	16.9	22.8
2-8	11/ 9/78	7.5-15	0.30	6.9	0.60	7.6	0.65	12.1	24.8
2-8	11/ 9/78	15-30	0.45	7.4	0.55	10.3	2.30	0.6	28.3
2-8	11/ 9/78	30-45	0.25	3.7	0.22	5.6	1.30	0.4	26.9
2-8	11/ 9/78	45-60	0.20	1.6	0.05	3.4	0.90	2.6	27.1
2-8	11/ 9/78	60-90	0.20	1.0	0.05	4.4	0.85	15.1	28.0
2-8	11/ 9/78	90-120	0.25	0.9	0.42	6.9	0.45	22.0	29.3
2-8	11/ 9/78	120-150	0.40	0.4	0.75	10.3	0.45	19.6	27.5

TABLE F1-18. CONCLUDED

SITE	DATE	DEPTH CM	NH4-N	NO3-N	PO4-P	CL	EXT N	AVL P	H2O
			------SOLUBLE PPM-----				--SOIL PPM--		%
3-1	11/ 9/78	0-1	1.00	3.8	6.43	23.4	2.75	50.6	15.2
3-1	11/ 9/78	1-7.5	0.20	2.1	0.51	2.8	0.80	10.7	17.9
3-1	11/ 9/78	7.5-15	0.20	0.8	0.26	1.6	0.85	2.8	20.0
3-1	11/ 9/78	15-30	0.10	0.4	0.17	2.9	0.80	2.5	22.8
3-1	11/ 9/78	30-45	0.10	0.4	0.13	2.3	0.80	3.7	24.2
3-1	11/ 9/78	45-60	0.10	0.2	0.07	2.5	0.50	19.4	25.0
3-1	11/ 9/78	60-90	0.15	0.1	0.10	1.3	0.63	29.2	24.4
3-1	11/ 9/78	90-120	0.15	0.1	0.18	2.0	0.50	28.4	24.1
3-1	11/ 9/78	120-150	0.05	0.1	0.31	4.4	0.20	20.7	26.9
3-2	11/ 9/78	0-1	0.35	8.3	2.59	26.7	2.50	35.7	26.5
3-2	11/ 9/78	1-7.5	0.15	4.4	0.85	5.4	1.00	15.2	15.7
3-2	11/ 9/78	7.5-15	0.20	2.0	0.25	6.1	0.45	3.4	17.0
3-2	11/ 9/78	15-30	0.05	1.2	0.16	1.7	0.95	3.7	19.8
3-2	11/ 9/78	30-45	0.05	0.5	0.10	4.6	0.95	2.8	20.6
3-2	11/ 9/78	45-60	0.05	0.3	0.08	4.1	0.80	1.4	18.2
3-2	11/ 9/78	60-90	0.05	0.1	0.07	4.3	1.05	11.1	17.8
3-2	11/ 9/78	90-120	0.05	0.0	0.13	1.1	0.35	33.0	20.9
3-2	11/ 9/78	120-150	0.25	0.0	0.21	12.5	0.25	26.3	22.4
3-3	11/ 9/78	0-1	0.35	2.9	1.64	19.3	3.40	36.3	21.4
3-3	11/ 9/78	1-7.5	0.35	1.1	0.31	8.1	0.75	11.6	17.9
3-3	11/ 9/78	7.5-15	0.25	0.3	0.17	7.6	0.80	7.3	19.2
3-3	11/ 9/78	15-30	0.05	0.0	0.13	2.0	0.25	7.3	19.4
3-3	11/ 9/78	30-45	0.20	0.3	0.14	7.9	0.35	7.7	19.7
3-3	11/ 9/78	45-60	0.05	0.2	0.03	0.7	0.40	1.3	18.7
3-3	11/ 9/78	60-90	0.05	0.1	0.02	2.2	0.25	1.8	17.5
3-3	11/ 9/78	90-120	0.10	0.1	0.04	1.3	0.35	2.2	21.0
3-3	11/ 9/78	120-150	0.05	0.0	0.04	1.0	0.15	1.2	22.4
3-4	11/ 9/78	0-1	0.35	32.7	5.86	18.3	2.25	36.2	45.8
3-4	11/ 9/78	1-7.5	0.10	14.0	0.85	2.2	0.70	13.4	29.7
3-4	11/ 9/78	7.5-15	0.10	9.5	0.38	2.4	0.40	19.7	26.2
3-4	11/ 9/78	15-30	0.05	7.1	0.31	2.0	1.55	5.4	25.3
3-4	11/ 9/78	30-45	0.10	2.4	0.39	2.8	0.15	5.4	26.9
3-4	11/ 9/78	45-60	0.30	1.7	0.36	2.6	0.10	6.1	27.3
3-4	11/ 9/78	60-90	0.05	1.1	0.37	2.2	0.05	4.4	28.0
3-4	11/ 9/78	90-120	0.10	1.1	0.51	2.9	0.10	5.7	29.3
3-4	11/ 9/78	120-150	0.10	0.6	0.48	4.0	0.15	2.4	31.8
3-5	11/ 9/78	0-1	0.40	3.9	4.58	16.0	1.40	39.5	16.0
3-5	11/ 9/78	1-7.5	0.25	2.9	0.43	2.4	0.55	3.1	16.2
3-5	11/ 9/78	7.5-15	0.15	1.8	0.26	1.4	0.25	3.9	16.7
3-5	11/ 9/78	15-30	0.15	0.8	0.15	1.1	0.25	6.6	17.7
3-5	11/ 9/78	30-45	0.05	0.3	0.05	0.8	0.65	5.6	19.8
3-5	11/ 9/78	45-60	0.05	0.1	0.13	0.8	0.40	6.6	20.3
3-5	11/ 9/78	60-90	0.05	0.0	0.23	0.8	0.30	9.0	17.9
3-5	11/ 9/78	90-120	0.05	2.1	0.43	1.6	0.40	12.3	21.8
3-5	11/ 9/78	120-150	0.0	0.4	1.29	1.5	0.20	13.7	22.8

SITE	DATE	NH4-N	NO3-N	PO4-P	CL	EXT N	AVL P	H2O
		----------KG/HA----------						CM
1-1	11/ 9/78	5.3	39.8	9.9	179.0	68.4	189.9	51.1
1-2	11/ 9/78	11.7	75.3	7.8	318.1	60.0	49.1	59.6
1-3	11/ 9/78	1.9	58.0	6.6	77.6	20.6	311.0	50.1
1-4	11/ 9/78	4.3	64.3	3.8	198.4	32.9	287.0	55.7
1-5	11/ 9/78	21.8	93.3	3.9	341.8	22.3	373.7	57.2
1-6	11/ 9/78	6.3	39.9	2.6	256.0	18.0	42.9	53.4
1-7	11/ 9/78	1.1	62.7	4.2	317.6	15.8	361.2	55.0
1-8	11/ 9/78	8.4	89.3	8.6	404.1	14.8	89.9	55.4
2-1	11/ 9/78	25.7	80.7	15.3	321.1	10.1	73.5	57.1
2-2	11/ 9/78	2.6	54.9	5.3	127.2	12.7	327.5	52.2
2-3	11/ 9/78	7.8	51.9	10.1	185.4	7.1	15.4	56.9
2-4	11/ 9/78	2.7	60.9	6.7	147.0	10.7	242.8	53.7
2-5	11/ 9/78	3.6	40.2	9.7	182.6	12.1	202.5	55.9
2-6	11/ 9/78	3.9	58.3	5.4	146.8	19.2	289.7	54.5
2-7	11/ 9/78	16.1	55.8	17.3	285.7	14.1	34.8	53.4
2-8	11/ 9/78	5.7	45.5	9.2	142.0	16.6	261.1	53.8
3-1	11/ 9/78	2.4	6.3	4.7	52.7	11.1	379.7	47.3
3-2	11/ 9/78	2.1	11.6	3.6	106.3	13.2	319.9	38.8
3-3	11/ 9/78	1.9	4.0	1.7	55.0	6.7	72.8	38.9
3-4	11/ 9/78	2.1	57.6	9.3	57.4	5.8	116.6	56.2
3-5	11/ 9/78	1.3	17.7	9.8	26.7	6.9	187.0	39.1

TABLE F2- 1. FOUR MILE CREEK WATERSHED RUNOFF NUTRIENT CONCENTRATION DATA FOR [illegible]6 SITE 1

SITE	DATE	HOUR	MIN	NH4-N	NO3-N	PO4-P	TDS	TDS+SEDT	CL-
				PPM					
1	2/27/76	13	10	0.07	3.53	0.028	180	1085	8.91
1	2/27/76	14	3	0.06	3.36	0.028	161	706	8.53
1	2/27/76	15	32	0.07	2.95	0.042	158	487	9.20
1	2/27/76	16	51	0.07	3.06	0.034	153	466	8.76
1	2/27/76	18	7	0.10	3.11	0.056	153	563	9.31
1	2/27/76	19	50	0.07	3.06	0.050	74	186	10.44
1	2/28/76	13	0	0.09	4.38	0.044	142	222	9.00
1	2/28/76	15	0	0.06	3.88	0.026	151	288	9.74
1	2/28/76	16	20	0.07	3.87	0.035	159	207	9.75
1	2/28/76	18	10	0.08	4.32	0.038	129	165	7.31
1	3/ 7/76	13	28	0.11	0.75	0.003	90	172	3.08
1	3/ 7/76	14	30	0.05	0.49	0.004	85	211	1.67
1	3/ 7/76	15	39	0.05	0.94	0.002	73	275	0.82
1	3/ 7/76	18	20	0.08	1.32	0.022	88	177	
1	3/ 9/76	11	52	0.04	1.27	0.004	102	943	3.22
1	3/ 9/76	14	7	0.12	1.67	0.010	107	1157	4.41
1	3/ 9/76	15	37	0.04	2.23	0.069	117	836	5.16
1	3/ 9/76	16	38	0.03	2.40	0.002	118	570	5.80
1	3/10/76	13	35	0.05	3.38	0.034	157	474	7.81
1	3/10/76	14	51	0.07	3.65	0.032	127	355	7.93
1	3/10/76	16	18	0.05	3.75	0.031	136	272	8.13
1	5/29/76	7	25	0.28	5.37	0.093	125	26160	1.87
1	5/29/76	7	26	0.36	6.29	0.021	182	36760	4.76
1	5/29/76	7	28	0.49	10.29	0.049	219	43090	4.76
1	5/29/76	7	30	0.32	11.15	0.032	250	46600	16.17
1	6/13/76	18	42	0.17	3.26	0.035	98	26870	1.00
1	6/13/76	18	47	0.29	3.01	0.029	131	30060	1.00
1	6/13/76	18	54	0.17	2.02	0.022	101	25040	1.01
1	6/13/76	18	55	0.31	2.91	0.030	75	26280	1.04
1	6/13/76	18	56	0.23	1.88	0.016	144	18580	1.06
1	6/13/76	18	57	0.27	1.53	0.030	46	18790	1.08
1	6/13/76	18	58	0.19	1.57	0.017	98	20310	1.12
1	6/13/76	18	59	0.18	1.40	0.023	18	17600	1.15
1	6/13/76	19	1	0.21	1.27	0.014	51	14620	0.96
1	6/13/76	19	3	0.29	1.25	0.017	65	13090	1.11
1	6/13/76	19	5	0.19	1.04	0.019	42	11570	0.89
1	6/13/76	19	7	0.16	1.00	0.022	35	10880	0.57
1	6/13/76	19	9	0.16	0.93	0.019	42	9951	0.94
1	6/13/76	19	11	0.21	0.88	0.021	42	9946	0.92
1	6/13/76	19	13	0.18	0.79	0.021	36	9119	0.82
1	6/13/76	19	15	0.18	0.79	0.014	37	8152	0.86
1	6/13/76	19	17	0.16	0.84	0.009	55	7394	0.79
1	6/13/76	19	18	0.08	2.14	0.028	93	5455	0.81
1	6/13/76	19	19	0.16	0.77	0.014	47	7013	0.86
1	6/13/76	19	30	0.16	1.33	0.021	32	10680	2.40
1	6/13/76	19	36	0.16	1.00	0.021	68	7742	0.93
1	6/13/76	19	38	0.16	0.98	0.023	52	8208	1.06
1	6/13/76	19	40	0.16	0.88	0.019	63	9432	0.81
1	6/13/76	19	42	0.18	0.78	0.020	52	9567	1.19
1	6/13/76	19	44	0.18	0.74	0.006	96	9820	0.80
1	6/13/76	19	46	0.21	0.66	0.011	42	9372	0.86
1	6/13/76	19	48	0.18	0.65	0.017	34	8782	0.96
1	6/13/76	19	50	0.20	0.61	0.019	37	7178	0.76
1	6/13/76	19	52	0.25	0.56	0.021	26	6677	0.83
1	6/13/76	19	54	0.23	0.61	0.027	27	5657	0.83
1	6/13/76	19	56	0.13	0.67	0.022	17	5769	0.79
1	6/13/76	20	27	0.13	0.69	0.020	29	6749	0.81
1	6/13/76	20	29	0.14	0.68	0.022	32	5574	0.90
1	6/13/76	20	31	0.13	0.78	0.017	29	6877	0.77
1	6/13/76	20	33	0.13	0.87	0.015	27	8139	0.69
1	6/13/76	20	35	0.14	0.87	0.010	56	7860	0.68
1	6/13/76	20	37	0.11	0.76	0.014	15	7188	0.67
1	6/13/76	20	39	0.17	0.73	0.004	41	6695	0.80
1	6/13/76	20	41	0.18	0.70	0.023	23	5927	0.81
1	6/13/76	20	43	0.22	0.59	0.018	35	5306	1.23
1	6/13/76	20	45						
1	6/13/76	20	47	0.12	0.69	0.008	29	4643	0.79
1	6/13/76	20	49	0.11	0.61	0.016	21	4306	0.77
1	6/13/76	20	51	0.14	0.53	0.016	30	3898	1.09
1	6/13/76	20	53	0.27	0.57	0.015	30	4023	2.36
1	6/13/76	20	55	0.17	0.59	0.008	35	4059	0.86
1	6/13/76	20	57	0.02	0.51	0.010	20	4127	1.15
1	6/13/76	20	59	0.15	0.59	0.022	25	3881	0.72
1	6/13/76	21	1	0.19	0.57	0.019	30	3927	2.05
1	6/13/76	21	3	0.12	0.56	0.018	22	3577	0.75
1	6/13/76	21	5	0.08	0.58	0.015	76	3617	0.75
1	6/13/76	21	7	0.10	0.63	0.017	33	3341	0.70
1	6/13/76	21	9	0.13	0.68	0.019	115	3704	1.17
1	6/13/76	21	17	0.07	1.22	0.021	69	3436	2.20
1	6/13/76	21	27	0.10	1.37	0.013	37	3124	2.40
1	6/13/76	21	40	0.09	1.32	0.017	119	2578	2.40

TABLE F2- 2. FOUR MILE CREEK WATERSHED RUNOFF NUTRIENT CONCENTRATION DATA FOR 1976 SITE 2

SITE	DATE	HOUR	MIN	NH4-N	NO3-N	PO4-P	TDS	TDS+SEDT	CL-
				----------	----------	PPM	----------	----------	----------
2	2/27/76	13	10	0.23	6.50	0.013	274	1857	2.70
2	2/27/76	14	0	0.17	5.51	0.059	182	4350	2.19
2	2/27/76	15	30	0.14	5.53	0.016	172	1826	2.20
2	2/27/76	16	55	0.14	5.48	0.004	160	1839	2.44
2	2/27/76	18	2	0.17	5.78	0.021	168	980	2.33
2	2/27/76	19	55	0.20	5.81	0.008	193	397	2.27
2	2/28/76	13	0	0.22	6.30	0.004	194	320	1.66
2	2/28/76	15	0	0.21	6.05	0.002	166	299	1.97
2	2/28/76	16	20	0.19	6.22	0.010	146	265	2.11
2	2/28/76	18	5	0.25	6.30	0.008	176	216	1.06
2	3/ 7/76	13	30	0.12	0.12	0.002	5	250	0.63
2	3/ 7/76	14	35	0.21	0.13	0.0	11	228	1.20
2	3/ 7/76	15	35	0.25	1.66	0.001	78	213	1.74
2	3/ 7/76	18	24	0.24	1.85	0.003	90	141	1.37
2	3/ 9/76	11	48	0.11	2.37	0.004	125	2816	1.36
2	3/ 9/76	14	0	0.20	4.08	0.015	139	3724	1.41
2	3/ 9/76	15	35	0.15	5.29	0.001	158	3758	0.0
2	3/ 9/76	16	34	0.16	5.35	0.051	151	2359	1.86
2	3/10/76	13	30	0.20	7.77	0.020	208	2589	1.97
2	3/10/76	15	0	0.18	7.76	0.017	216	3042	2.62
2	3/10/76	16	14	0.13	8.25	0.011	226	2269	2.46
2	4/17/76	0	16	0.99	3.86	0.031	84	5624	4.84
2	4/17/76	0	24	4.85	2.25	0.281	47	8435	5.88
2	4/23/76	8	13	1.14	1.81	0.189	78	14270	1.26
2	4/23/76	8	50	0.98	1.52	0.079	62	8001	1.14
2	4/23/76	17	37	0.80	2.50	0.015	31	9292	3.01
2	4/23/76	17	39	0.91	2.10	0.039	68	8581	1.16
2	5/29/76	7	27	0.28	3.09	0.043	108	11170	3.37
2	5/29/76	7	29	0.30	2.43	0.069	90	13120	1.80
2	5/29/76	7	30	0.45	2.20	0.088	100	20210	2.11
2	5/29/76	7	31	0.42	1.90	0.067	89	22830	2.12
2	5/29/76	7	32	0.49	2.09	0.102	108	35600	1.75
2	6/13/76	19	34	0.17	11.84	0.016	161	8331	1.28
2	6/13/76	19	40	0.15	8.31	0.024	155	10070	1.05
2	6/13/76	19	45	0.17	8.25	0.023	137	8879	1.28
2	6/13/76	19	55	0.15	6.40	0.033	110	5022	1.55
2	6/13/76	20	5	0.21	6.35	0.045	133	4823	1.73
2	6/13/76	20	15	0.18	7.60	0.051	151	2881	1.71
2	6/13/76	20	25	0.12	9.54	0.031	165	4563	1.45
2	6/13/76	20	34	0.13	6.36	0.031	119	5940	6.00
2	6/13/76	20	35	0.14	6.85	0.041	111	6800	1.29
2	6/13/76	20	45	0.15	5.69	0.041	139	5909	1.32
2	6/13/76	20	55	0.17	5.09	0.049	91	4181	1.21
2	6/13/76	21	5	0.22	4.72	0.050	129	3703	1.17
2	6/13/76	21	15	0.24	4.89	0.047	100	2590	1.18
2	6/13/76	21	20	0.16	5.51	0.048	144	2530	1.27
2	6/13/76	21	35	0.19	5.93	0.060	106	1887	1.23
2	6/13/76	21	45	0.15	6.92	0.058	123	1554	1.39

TABLE F2- 3. FOUR MILE CREEK WATERSHED RUNOFF NUTRIENT CONCENTRATION DATA FOR 1976 SITE 3

SITE	DATE	HOUR	MIN	NH4-N	NO3-N	PO4-P	TDS	TDS+SEDT	CL-
				----------	----------	PPM	----------	----------	
3	2/25/76	14	0	0.25	5.22	1.583	264	459	14.04
3	2/25/76	16	0	0.29	2.18	1.705	211	514	10.70
3	2/25/76	17	0	0.26	1.63	1.634	204	399	9.50
3	2/25/76	18	46	0.26	1.63	1.604	186	233	8.15
3	2/26/76	18	15	0.17	1.23	1.565	203	200	6.33
3	2/27/76	12	37	0.12	1.07	1.469	174	384	5.18
3	2/27/76	13	45	0.15	0.82	1.403	183	335	5.44
3	2/27/76	14	30	0.16	0.82	1.483	86	412	4.70
3	2/27/76	16	0	0.16	0.67	1.355	137	207	3.57
3	2/27/76	17	35	0.12	0.68	1.225	119	152	3.21
3	2/27/76	19	27	0.13	0.75	1.128	140	146	3.07
3	2/27/76	21	45	0.12	0.97	1.069	162	190	3.22
3	2/28/76	13	30	0.17	2.35	0.978	183	183	4.00
3	2/28/76	16	0	0.14	1.62	1.012	173	181	4.65
3	3/ 7/76	13	10	0.15	0.11	0.909	46	482	0.92
3	3/ 7/76	14	18	0.15	0.12	1.207	72	687	1.03
3	3/ 7/76	15	18	0.19	0.22	1.219	101	186	1.58
3	3/ 7/76	18	40	0.13	0.18	0.965	90	86	1.47
3	3/ 9/76	11	32	0.11	0.0	0.017	23	116	
3	3/ 9/76	13	5	0.13	0.44	0.805	111	117	2.03
3	3/ 9/76	14	50	0.10	0.20	0.638	86	127	1.48
	3/ 9/76	16	16	0.09	0.63	0.821	105	127	2.05
3	3/ 9/76	18	0	0.09	0.69	0.742	122	157	2.41
3	4/23/76	17	40	0.14	1.60	0.083	178	477	2.67
3	5/29/76	7	50	0.76	0.68	0.095	122	1688	4.54
3	5/29/76	7	55	0.65	0.70	0.085	113	1930	3.69

TABLE F2- 4. FOUR MILE CREEK WATERSHED RUNOFF NUTRIENT CONCENTRATION DATA FOR 1976 SITE 4

SITE	DATE	HOUR	MIN	NH4-N	NO3-N	PO4-P	TDS	TDS+SEDT	CL-
				PPM					
4	1/ 1/76	17	10	0.40	3.65	0.009	243	304	14.02
4	1/ 2/76	17	7	0.40	4.03	0.008	246	306	15.30
4	1/ 3/76	17	5	0.37	4.28	0.010	279	443	18.31
4	1/ 4/76	16	52	0.49	4.97	0.012	317	393	
4	1/ 5/76	16	56	0.42	4.45	0.011	402	434	16.75
4	1/ 6/76	17	0	0.39	4.54	0.010	339	425	17.11
4	1/ 7/76	17	6	0.37	5.28	0.022	293	394	18.16
4	1/ 8/76	17	12	0.47	4.92	0.101	328	420	20.90
4	1/ 9/76	17	6	0.43	4.79	0.027	288	412	18.51
4	1/10/76	17	8	0.39	4.85	0.058	361	408	17.08
4	1/11/76	17	9	0.34	4.63	0.080	323	370	12.88
4	1/12/76	17	18	0.36	5.36	0.039	373	382	13.69
4	1/13/76	17	2	0.36	4.74	0.076	358	387	20.28
4	1/14/76	17	11	0.36	4.89	0.052	252	362	14.97
4	1/15/76	16	51	0.38	4.74	0.046	255	338	15.46
4	1/16/76	16	55	0.44	5.08	0.039	278	395	20.02
4	1/18/76	17	20	0.49	5.25	0.025	403	475	
4	1/19/76	17	7	0.44	4.75	0.032	362	400	20.05
4	1/20/76	16	58	0.44	4.86	0.021	271	363	15.23
4	1/21/76	17	15	0.37	4.62	0.051	256	395	13.53
4	1/22/76	17	17	0.36	4.40	0.049	258	405	16.02
4	1/23/76	16	50	0.37	4.35	0.036	255	360	13.21
4	1/24/76	17	30	0.40	4.30	0.022	250	382	16.32
4	1/25/76	17	25	0.42					
4	1/26/76	17	45	0.57	3.94	0.167	265	369	15.03
4	1/27/76	17	28	0.86	4.04	0.074	359	387	17.48
4	1/28/76	17	25	0.50	4.00	0.025	238	318	19.62
4	1/29/76	17	26	0.46	3.89	0.036	277	280	14.81
4	1/30/76	17	32	0.46	3.83	0.015	267	276	15.32
4	1/31/76	17	16	0.49	4.32	0.013	249	314	18.12
4	2/ 1/76	17	31	0.46	3.98	0.011	248	334	13.48
4	2/ 2/76	17	32	0.51	4.09	0.004	326	391	15.12
4	2/ 3/76	17	41	0.51	4.26	0.035	381	414	19.16
4	2/ 4/76	17	30	0.41	4.69	0.010	288	411	17.11
4	2/ 5/76	17	29	0.37	4.88	0.025	291	380	17.91
4	2/ 6/76	17	34	0.36	4.73	0.015	402	374	
4	2/ 7/76	17	12	0.29	4.51	0.014	374	403	14.73
4	2/ 8/76	17	12	0.29	4.36	0.031	351	348	13.12
4	2/ 9/76	17	25	0.30	3.78	0.044	318	311	13.15
4	2/10/76	18	4	0.35	3.09	0.101	264	297	10.38
4	2/11/76	17	25	0.39	2.95	0.034	297	315	16.67
4	2/12/76	17	37	0.46	2.70	0.050	254	303	16.59
4	2/13/76	17	45	0.50	2.85	0.041	284	346	17.05
4	2/14/76	17	47	0.46	2.93	0.028	287	320	16.52
4	2/15/76	17	15	0.51	2.01	0.103	208	417	11.48
4	2/16/76	17	25	0.79	2.21	0.035	259	358	15.64
4	2/17/76	17	53	1.12	3.01	0.039	306	404	18.73
4	2/18/76	17	18	1.14	2.94	0.031	321	417	17.76
4	2/19/76	17	22	0.56	2.93	0.034	240	366	14.62
4	2/20/76	17	55	0.60	2.16	0.023	217	433	15.05
4	2/22/76	12	29	0.52	2.32	0.018	281	279	11.53
4	2/22/76	17	25	0.58	2.41	0.029	272	301	13.59
4	2/23/76	18	5	0.61	2.55	0.098	302	322	13.62
4	2/24/76	18	0	0.56	3.12	0.101	273	317	13.04
4	2/25/76	18	39	0.96	3.24	0.649	233	451	11.75
4	2/26/76	18	20						
4	2/27/76	12	31	0.59	5.42	0.459	164	1770	11.80
4	2/27/76	13	40	0.52	3.70	0.409	139	2477	10.20
4	2/27/76	15	10	0.47	3.71	0.255	154	4726	8.61
4	2/27/76	19	30	0.62	6.39	0.104	182	6177	13.02
4	2/27/76	21	50	0.46	6.25	0.109	168	4355	12.80
4	2/28/76	7	55	0.47	5.34	0.168	160	1223	9.12
4	2/28/76	13	34	0.47	6.49	0.106	211	789	13.93
4	2/28/76	17	50	0.46	6.43	0.073	267	834	10.95
4	2/29/76	13	10	0.36	6.03	0.056	276	494	10.73
4	2/29/76	17	48	0.33	6.08	0.107	254	486	10.97
4	3/ 1/76	17	55	0.27	5.21	0.032	278	371	13.39
4	3/ 2/76	18	0	0.37	4.95	0.027	338	425	10.56
4	3/ 3/76	18	8						
4	3/ 4/76	18	9	0.30	3.21	0.109	176	384	6.25
4	3/ 5/76	17	55	0.36	4.10	0.074	290	465	9.40
4	3/ 6/76	17	58	0.41	4.17	0.066	254	460	11.17
4	3/ 7/76	13	15	0.52	3.99	0.047	278	514	9.09
4	3/ 7/76	14	15	0.57	3.59	0.064	251	426	9.11
4	3/ 7/76	15	25	0.58	3.73	0.102	279	461	9.17
4	3/ 7/76	18	45						
4	3/ 7/76	20	52	0.45	2.45	0.133	153	407	8.79
4	3/ 8/76	18	12	0.66	2.80	0.128	214	560	8.65
4	3/ 9/76	12	27	0.49	2.83	0.150	185	523	8.61
4	3/ 9/76	14	47	0.69	2.80	0.253	218	952	11.50
4	3/ 9/76	18	5	0.42	2.43	0.094	112	5298	6.92
4	3/ 9/76	20	15	0.51	2.69	0.111	118	4226	6.93
4	3/ 9/76	22	10	0.56	2.92	0.152	157	3451	7.44
4	3/10/76	18	4	0.43	5.07	0.161	244	674	11.34
4	3/11/76	19	5	0.32	5.41	0.112	266	737	11.02
4	3/12/76	4	3	0.45	6.49	0.082	176	6912	11.09
4	3/12/76	7	20	0.42	6.82	0.085	159	5864	10.07
4	3/12/76	10	9						
4	3/12/76	15	0	0.41	7.90	0.146	144	2944	13.32
4	3/12/76	18	7	0.37	8.27	0.125	234	2513	13.88
4	3/12/76	23	21	0.33	8.99	0.105	245	1676	14.56
4	3/13/76	17	54	0.19	7.84	0.069	197	713	12.47
4	3/14/76	18	4	0.17	6.81	0.032	236	548	12.12
4	3/15/76	18	4	0.15	6.64	0.031	315	380	12.71
4	3/16/76	18	8	0.14	6.42	0.035	278	517	12.71
4	3/17/76	17	55	0.15	6.29	0.027	290	470	13.08
4	3/18/76	17	50	0.15	6.16	0.030	295	448	13.59
4	3/19/76	18	0	0.14	5.99	0.030	296	443	12.70
4	3/20/76	18	15	0.13	5.92	0.033	255	469	12.80
4	3/21/76	17	50	0.11	5.97	0.026	250	422	12.38
4	3/22/76	18	10	0.12	6.02	0.028	293	413	13.65
4	3/23/76	18	0	0.11	5.68	0.032	294	391	13.00
4	3/24/76	17	48	0.09	5.67	0.027	296	411	12.98
4	3/25/76	17	47	0.08	5.51	0.029	291	400	12.39

TABLE F2- 4. CONTINUED

SITE	DATE	HOUR	MIN	NH4-N	NO3-N	PO4-P	TDS	TDS+SEDT	CL-
				PPM					
4	3/26/76	18	18	0.09	5.10	0.027	289	397	12.15
4	3/27/76	18	2	0.07	5.19	0.027	290	384	11.00
4	3/28/76	17	50	0.06	5.30	0.026	301	388	12.19
4	3/29/76	17	58	0.09	4.80	0.027	265	367	11.98
4	3/30/76	17	58	0.27	6.62	0.087	308	539	14.30
4	3/31/76	18	3	0.07	6.33	0.039	299	406	12.89
4	4/ 1/76	17	50	0.05	6.01	0.034	288	398	12.73
4	4/ 2/76	17	56	0.04	5.80	0.034	285	399	12.51
4	4/ 3/76	18	8	0.03	5.77	0.030	299	395	12.63
4	4/ 4/76	18	11	0.03	5.61	0.031	297	374	13.59
4	4/ 5/76	18	15	0.02	5.65	0.022	290	371	14.81
4	4/ 6/76	18	5	0.04	5.26	0.022	273	309	14.14
4	4/ 7/76	18	0	0.03	5.04	0.014	264	278	13.41
4	4/ 8/76	18	5	0.05	5.08	0.027	218	293	12.38
4	4/ 9/76	18	11	0.03	4.83	0.021	205	296	13.36
4	4/10/76	18	17	0.03	4.92	0.015	230	317	13.08
4	4/11/76	18	8	0.02	4.71	0.015	225	300	13.77
4	4/12/76	18	5	0.03	4.76	0.010	234	312	12.43
4	4/13/76	17	55	0.03	4.51	0.009	230	323	12.88
4	4/14/76	18	0	0.04	4.29	0.009	242	322	12.91
4	4/15/76	17	45	0.03	4.04	0.004	279	337	13.08
4	4/16/76	17	50	0.05	4.26	0.011	260	360	13.24
4	4/17/76	11	45	0.71	3.42	0.075	228	459	10.17
4	4/17/76	15	0	0.55	3.00	0.076	178	5136	7.51
4	4/17/76	17	0	1.37	4.06	0.044	199	1841	8.68
4	4/17/76	23	17	0.96	5.77	0.072	272	1046	11.79
4	4/18/76	4	30	0.69	4.42	0.107	147	11440	6.78
4	4/18/76	7	15	0.56	5.48	0.160	168	5665	7.80
4	4/18/76	11	15	0.58	8.36	0.156	250	3162	10.88
4	4/18/76	15	3	0.88	8.92	0.154	259	2394	12.01
4	4/18/76	18	50	0.58	11.07	0.139	288	1728	13.47
4	4/18/76	23	58	0.29	11.26	0.014	263	1081	13.71
4	4/19/76	9	25	0.71	10.96	0.046	302	819	13.51
4	4/19/76	15	0	0.32	10.00	0.052	305	642	13.19
4	4/20/76	18	2	0.14	6.54	0.100	281	1078	11.32
4	4/21/76	7	0	0.34	9.51	0.149	286	1199	10.56
4	4/21/76	18	15	0.15	10.47	0.084	272	858	12.43
4	4/22/76	18	3	0.12	10.33	0.055	250	669	13.07
4	4/23/76	11	0	0.51	3.54	0.040	113		3.38
4	4/23/76	12	5	0.32	4.62	0.006	147	5966	5.66
4	4/23/76	14	15	0.34	3.10	0.0	90	8303	4.25
4	4/23/76	17	55	0.29	5.27	0.100	183	3984	5.41
4	4/23/76	22	3	0.38	7.36	0.085	238	3288	8.27
4	4/24/76	7	30	0.31	7.89	0.087	236	2399	9.85
4	4/24/76	18	1	0.27	9.64	0.101	271	907	10.91
4	4/25/76	8	45	0.13	10.36	0.061	272	690	11.78
4	4/25/76	18	20	0.14	10.39	0.058	314	668	12.28
4	4/26/76	17	47	0.07	9.70	0.028	286	530	12.78
4	4/27/76	17	52	0.07	10.91	0.031	278	521	13.38
4	4/28/76	17	52	0.07	10.81	0.026	305	453	12.43
4	4/29/76	18	17	0.06	10.86	0.027	302	480	13.02
4	4/30/76	17	15	0.07	10.63	0.038	304	404	12.93

SITE	DATE	HOUR	MIN	NH4-N	NO3-N	PO4-P	TDS	TDS+SEDT	CL-
				PPM					
4	5/ 1/76	17	56	0.07	10.38	0.025	295	436	12.45
4	5/ 2/76	5	58	0.08	9.71	0.032	293	485	12.42
4	5/ 2/76	11	8	0.19	8.98	0.049	315	513	11.89
4	5/ 2/76	17	55	0.21	10.07	0.056	329	471	12.49
4	5/ 3/76	18	14	0.05	10.37	0.045	311	415	12.65
4	5/ 4/76	18	0	0.20	9.16	0.085	327	426	17.04
4	5/ 5/76	18	0	0.15	11.84	0.173	431	509	19.29
4	5/ 6/76	18	19	0.02	10.24	0.021	295	342	12.88
4	5/ 7/76	18	20	0.04	10.46	0.019	315	380	12.76
4	5/ 8/76	17	58	0.02	10.00	0.026	280	379	12.83
4	5/ 9/76	17	46	0.03	10.21	0.015	284	376	12.55
4	5/10/76	17	49	0.04	10.00	0.021	282	344	12.86
4	5/11/76	18	9	0.03	9.57	0.022	283	387	12.52
4	5/12/76	18	1	0.03	9.87	0.019	284	415	12.62
4	5/13/76	17	57	0.04	8.99	0.017	302	356	12.19
4	5/14/76	18	19	0.03	9.03	0.022	288	369	12.54
4	5/15/76	17	58	0.03	8.38	0.024	270	373	12.60
4	5/16/76	17	50	0.09	7.24	0.060	291	443	11.92
4	5/17/76	18	15	0.06	9.20	0.042	329	381	14.30
4	5/18/76	18	0	0.04	9.47	0.016	343	425	15.21
4	5/19/76	18	20	0.05	8.85	0.014	333	425	12.41
4	5/20/76	17	51	0.05	9.81	0.019	313	408	14.13
4	5/21/76	18	20	0.04	9.67	0.012	320	404	13.96
4	5/22/76	18	14	0.05	9.24	0.008	309	418	11.72
4	5/23/76	18	12	0.06	9.26	0.022	327	432	12.44
4	5/24/76	18	10	0.35	8.82	0.034	327	350	12.47
4	5/25/76	18	18	0.04	9.02	0.034	324	371	12.47
4	5/26/76	18	10	0.03	8.69	0.023	348	365	12.56
4	5/27/76	18	20	0.03	8.79	0.024	330	347	12.23
4	5/28/76	17	55	0.05	8.67	0.016	327	344	12.73
4	5/29/76	8	40	0.11	8.40	0.035	310	486	12.27
4	5/29/76	9	40	0.09	7.91	0.031	315	481	11.55
4	5/29/76	12	30	0.34	8.15	0.027	208	12530	9.26
4	5/29/76	15	30	0.24	5.30	0.051	155	10340	6.80
4	5/29/76	19	20	0.25	8.22	0.045	268	2825	8.83
4	5/30/76	7	11	0.11	9.88	0.011	395	699	12.59
4	5/30/76	17	47	0.08	8.69	0.032	337	518	12.99
4	5/31/76	17	45	0.04	9.58	0.026	332	468	12.99
4	6/ 1/76	18	13	0.05	10.03	0.027	341	450	13.04
4	6/ 2/76	18	5	0.03	10.21	0.027	311	426	13.22
4	6/ 3/76	17	52	0.03	10.05	0.021	326	398	13.32
4	6/ 4/76	17	50	0.04	9.36	0.023	327	400	13.53
4	6/ 5/76	17	50	0.02	9.08	0.021	318	361	13.36
4	6/ 6/76	18	24	0.03	9.00	0.023	331	386	13.99
4	6/ 7/76	17	51	0.13	9.03	0.024	342	334	12.92
4	6/ 8/76	17	45	0.11	8.84	0.023	298	383	12.76
4	6/ 9/76	17	44	0.11	8.96	0.023	303	365	12.13
4	6/10/76	7	29	0.10	8.25	0.024	329	410	12.48
4	6/10/76	18	19	0.04	8.08	0.024	306	374	13.01
4	6/11/76	17	48	0.05	8.75	0.026	334	376	13.70
4	6/12/76	18	0	0.05	8.58	0.033	322	382	13.31
4	6/13/76	17	40	0.12	8.32	0.044	362	364	14.18

TABLE F2- 4. CONTINUED

SITE	DATE	HOUR	MIN	NH4-N	NO3-N	PO4-P	TDS	TDS+SEDT	CL-
				PPM					
4	6/13/76	21	25	0.36	5.23	0.033	161	9932	4.54
4	6/14/76	0	17	0.52	5.32	0.026	152	17330	4.35
4	6/14/76	2	15	0.54	5.45	0.039	188	10650	3.89
4	6/14/76	7	30	0.34	10.59	0.100	263	2656	8.16
4	6/14/76	11	30	0.29	12.57	0.068	337	1398	11.40
4	6/14/76	17	30	0.21	13.52	0.049	329	859	12.47
4	6/15/76	9	23	0.13	11.90	0.037	331	611	12.93
4	6/15/76	18	10	0.09	11.45	0.030	331	556	13.24
4	6/16/76	18	20	0.05	10.73	0.035	313	493	12.92
4	6/17/76	17	56	0.03	10.64	0.027	322	494	13.28
4	6/18/76	17	49	0.02	10.28	0.090	341	588	13.66
4	6/19/76	18	13	0.01	10.88	0.064	336	474	13.50
4	6/20/76	17	59	0.06	10.71	0.028	324	425	13.39
4	6/21/76	18	10	0.0	10.70	0.058	360	415	13.16
4	6/22/76	17	50	0.0	10.76	0.040	372	395	12.78
4	6/23/76	18	25	0.0	10.51	0.047	380	419	12.84
4	6/24/76	18	0	0.0	9.17	0.053	323	453	12.11
4	6/25/76	17	48	0.0	9.94	0.044	337	418	12.80
4	6/26/76	17	51	0.0	9.94	0.049	324	364	13.21
4	6/27/76	18	8	0.0	9.53	0.061	324	351	13.22
4	6/28/76	17	40	0.0	9.50	0.052	291	348	13.03
4	6/29/76	17	20	0.0	8.90	0.069	293	347	13.08
4	6/30/76	18	10	0.0	9.50	0.067	292	367	13.25
4	7/ 1/76	18	26	0.0	8.90	0.055	291	386	13.18
4	7/ 2/76	18	0	0.03	7.60	0.167	352	375	13.80
4	7/ 3/76	17	40	0.03	7.80	0.116	284	350	15.68
4	7/ 4/76	18	21	0.01	7.20	0.049	429	327	14.99
4	7/ 5/76	17	40	0.01	6.40	0.033	425	337	13.97
4	7/ 6/76	18	20	0.05	6.30	0.052	435	360	15.94
4	7/ 7/76	18	12	0.59	5.50	0.060	443	346	15.09
4	7/ 8/76	18	10	0.05	5.50	0.124	307	352	15.83
4	7/ 9/76	18	18	0.03	5.40	0.077	312	358	20.17
4	7/10/76	18	21	0.06	5.10	0.072	312	360	16.85
4	7/11/76	18	9	0.02	4.80	0.050	317	342	16.15
4	7/12/76	18	7	0.05	5.70	0.051	319	438	15.86
4	7/13/76	18	0	0.05	5.30	0.039	315	398	14.20
4	7/14/76	18	3	0.11	4.90	0.038	304	386	21.48
4	7/15/76	18	13	0.04	4.40	0.035	306	377	15.53
4	7/16/76	18	28	0.03	4.30	0.046	360	423	14.33
4	7/17/76	18	30	0.01	4.40	0.027	362	451	17.90
4	7/18/76	18	21	0.06	4.00	0.041	288	411	17.10
4	7/19/76	18	1	0.15	4.00	0.034	310	332	16.28
4	7/20/76	18	7	0.15	4.10	0.036	279	349	16.77
4	7/21/76	18	21	0.10	4.10	0.024	276	367	20.94
4	7/22/76	18	48	0.15	4.10	0.077	283	390	18.86
4	7/23/76	18	20	0.10	3.90	0.028	281	360	16.69
4	7/24/76	18	18	0.06	3.20	0.021	283	385	15.06
4	7/25/76	18	8	0.19	2.80	0.089	282	329	19.29
4	7/26/76	18	27	0.09	3.50	0.009	275	391	13.49
4	7/27/76	18	29	0.01	3.40	0.016	290	348	21.10
4	7/28/76	18	25	0.02	3.17	0.017	250	370	16.70
4	7/29/76	18	30	0.01	3.17	0.011	287	370	21.30
4	7/30/76	18	5	0.0	3.07	0.012	292	317	23.80
4	7/31/76	18	11	0.01	2.97	0.008	300	352	22.20
4	8/ 1/76	18	27	0.01	2.53	0.007	281	344	20.60
4	8/ 2/76	18	20	0.0	2.53	0.016	315	368	27.60
4	8/ 3/76	18	17	0.0	2.44	0.010	281	391	38.24
4	8/ 4/76	18	29	0.03	2.66	0.010	261	393	17.34
4	8/ 5/76	17	42	0.0	2.42	0.010	249	308	18.86
4	8/ 6/76	18	3	0.04	2.33	0.011	274	293	19.65
4	8/ 7/76	17	59	0.0	1.56	0.016	285	527	18.82
4	8/ 8/76	18	25	0.0	1.56	0.017	255	309	19.83
4	8/ 9/76	18	31	0.02	1.58	0.008	352	329	30.60
4	8/10/76	18	0	0.10	1.92	0.002	319	310	18.83
4	8/11/76	17	58	0.06	1.47	0.006	325	318	15.56
4	8/12/76	18	20	0.04	1.73	0.017	320	316	16.90
4	8/13/76	18	7	0.31	2.76	0.013	341	385	18.12
4	8/14/76	18	11	0.68	2.19	0.034	299	402	23.74
4	8/15/76	18	16	0.16	2.53	0.024	379	360	28.02
4	8/16/76	18	31	0.33	3.18	0.051	313	424	27.30
4	8/17/76	17	40	0.31	3.07	0.025	337	444	21.14
4	8/18/76	18	12	0.08	2.76	0.020	342	375	20.08
4	8/19/76	18	26	0.22	2.04	0.100	332	429	25.90
4	8/20/76	17	45	0.24	1.43	0.006	350	413	22.30
4	8/21/76	18	6	0.46	1.12	0.116	332	605	24.60
4	8/22/76	18	13	0.23	1.12	0.001	356	465	22.10
4	8/23/76	18	28	0.26	2.39	0.002	356	531	17.08
4	8/24/76	17	34	0.21	2.51	0.018	215	348	18.46
4	8/25/76	18	26	0.24	2.74	0.020	277	388	19.57
4	8/26/76	18	25	0.13	1.82	0.0	245	315	16.58
4	8/27/76	18	28	0.23	2.42	0.001	282	377	32.57
4	8/28/76	18	10	0.18	3.27	0.002	274	396	17.30
4	8/29/76	18	1	0.31	6.05	0.014	288	589	20.48
4	8/30/76	18	3	0.16	0.92	0.008	285	425	13.99
4	9/ 1/76	8	51	0.30	1.06	0.015	301	401	13.91
4	9/ 1/76	18	17	0.12	0.69	0.019	261	397	12.35
4	9/ 2/76	18	29	0.12	0.44	0.002	311	704	16.41
4	9/ 3/76	18	17	0.22	0.42	0.013	286	400	23.39
4	9/ 4/76	17	57	0.06	0.42	0.004	271	425	15.38
4	9/ 5/76	18	17	0.04	1.16	0.011	312	479	13.68
4	9/ 6/76	18	13	0.21	0.27	0.015	387	559	11.69
4	9/ 7/76	18	19	0.06	0.37	0.013	293	471	13.78
4	9/ 9/76	18	12	0.16	0.81	0.008	321	521	19.80
4	9/10/76	18	31	0.16	0.93	0.008	299	453	16.08
4	9/11/76	18	16	0.11	0.30	0.011	298	419	11.82
4	9/12/76	18	3	0.19	0.64	0.005	310	452	22.81
4	9/13/76	18	24	0.28	0.44	0.010	397	506	15.90
4	9/14/76	18	25	0.17	0.98	0.015	370	458	23.67
4	9/15/76	18	12	0.30	1.20	0.010	398	501	21.60
4	9/16/76	18	21	0.28	0.64	0.004	374	473	19.25
4	9/17/76	18	0	0.35	1.26	0.009	350	434	18.44
4	9/18/76	18	23	0.23	1.10	0.011	357	435	22.03
4	9/19/76	18	20	0.31	1.54	0.021	342	524	16.64
4	9/20/76	18	32	0.30	2.94	0.013	328	477	28.08

TABLE F2- 4. CONCLUDED

SITE	DATE	HOUR	MIN	NH4-N	NO3-N	PO4-P	TDS	TDS+SEDT	CL-
				PPM					
4	9/21/76	18	28	0.23	2.10	0.011	320	475	20.68
4	9/22/76	18	2	0.34	1.77	0.005	357	510	32.60
4	9/23/76	18	0	0.36	1.22	0.006	373	484	40.70
4	9/24/76	18	0	0.39	1.07	0.010	326	508	28.10
4	9/25/76	18	23	0.47	1.39	0.006	359	490	32.20
4	9/26/76	18	31	0.30	1.63	0.011	347	475	32.90
4	9/27/76	18	11	0.34	2.10	0.012	339	434	20.27
4	9/28/76	18	25	0.39	2.23	0.003	315	409	15.90
4	9/29/76	18	29	0.30	2.10	0.004	305	499	15.07
4	9/30/76	18	30	0.22	2.08	0.014	312	470	15.66
4	10/ 1/76	18	7	0.39	2.70	0.015	333	433	20.66
4	10/ 2/76	17	35	0.37	1.98	0.005	304	396	15.68
4	10/ 3/76	18	6	0.24	1.76	0.007	314	429	24.47
4	10/ 4/76	18	22	0.48	2.39	0.022	387	421	18.40
4	10/ 5/76	18	26	0.27	2.42	0.017	367	387	16.09
4	10/ 6/76	18	19	0.32	3.39	0.020	277	462	21.67
4	10/ 7/76	18	30	0.19	1.77	0.010	364	351	14.47
4	10/ 8/76	17	57	0.28	2.72	0.029	393	540	17.46
4	10/ 9/76	18	27	0.23	2.15	0.022	536	435	17.46
4	10/10/76	18	20	0.28	2.16	0.014	419	488	16.97
4	10/11/76	18	12	0.08	4.58	0.011	429	498	16.64
4	10/12/76	18	30	0.17	2.80	0.021	331	524	14.06
4	10/13/76	18	20	0.11	2.30	0.009	380	526	14.62
4	10/14/76	18	29	0.06	1.78	0.013			13.87
4	10/15/76	17	40	0.0	0.84	0.007	433	558	14.59
4	10/16/76	18	35	0.0	2.28	0.019	392	540	15.19
4	10/17/76	18	31	0.03	1.49	0.011	392	474	13.43
4	10/18/76	18	27	0.16	2.38	0.010	399	515	19.39
4	10/19/76	18	30	0.0	2.48	0.0	335	500	14.34
4	10/20/76	17	57	0.02	3.08	0.010	366	503	62.00
4	10/21/76	18	13	0.03	3.08	0.013	373	548	21.48
4	10/22/76	17	40	0.0	3.18	0.011	433	400	22.67
4	10/23/76	18	21	0.09	3.08	0.012	323	398	21.15
4	10/24/76	18	9	0.0	2.91	0.0	296	453	18.42
4	10/25/76	18	10	0.04	3.04	0.003	309	415	13.98
4	10/26/76	18	24	0.03	3.26	0.004	307	405	18.41
4	10/27/76	18	13	0.11	2.96	0.004	320	430	20.66
4	10/28/76	18	33	0.04	2.56	0.002	309	389	20.60
4	10/29/76	18	10	0.15	2.73	0.0	315	446	15.45
4	10/30/76	18	16	0.0	2.13	0.0	321	505	14.62
4	10/31/76	17	57	0.0	2.44	0.003	341	466	15.71
4	11/ 1/76	17	42	0.12	2.82	0.008	297	399	20.57
4	11/ 2/76	18	0	0.03	2.01	0.007	301	395	14.68
4	11/ 3/76	17	44	0.01	2.40	0.011	339	451	16.95
4	11/ 4/76	17	49	0.01	1.98	0.010	364	406	17.46
4	11/ 5/76	17	46	0.07	2.82	0.012	379	443	33.90
4	11/ 6/76	18	26	0.09	2.82	0.009	342	415	16.89
4	11/ 7/76	18	32	0.07	3.96	0.012	380	439	16.35
4	11/ 8/76	18	17	0.12	3.61	0.003	369	490	15.48
4	11/ 9/76	17	53	0.03	3.49	0.006	357	433	14.77
4	11/10/76	18	7	0.01	4.19	0.002	368	421	14.46
4	11/11/76	18	6	0.05	4.72	0.001	402	407	16.34
4	11/12/76	17	45	0.06	6.43	0.003	522	500	22.83
4	11/13/76	17	37	0.09	4.62	0.002	437	431	31.90
4	11/14/76	17	48	0.09	5.76	0.002	385	438	21.23
4	11/15/76	17	58	0.21	5.10	0.007	374	317	15.87
4	11/16/76	17	45	0.20	4.67	0.003	317	325	15.47
4	11/17/76	17	51	0.20	4.13	0.005	282	358	18.15
4	11/18/76	17	40	0.20	3.39	0.002	264	317	15.15
4	11/19/76	17	49	0.21	3.07	0.001	294	458	14.99
4	11/20/76	17	46	0.21	3.13	0.0	269	409	16.34
4	11/21/76	17	30	0.19	3.15	0.007	275	350	17.04
4	11/22/76	17	53	0.17	3.77	0.005	319	389	15.59
4	11/23/76	18	0	0.17	4.73	0.011	371	459	20.71
4	11/24/76	18	0	0.20	3.67	0.007	353	441	19.09
4	11/25/76	17	49	0.18	3.20	0.011	310	419	18.01
4	11/26/76	18	20	0.12	2.88	0.011	260	411	12.82
4	11/27/76	17	37	0.15	3.42	0.007	313	417	15.55

TABLE F2- 5. FOUR MILE CREEK WATERSHED RUNOFF NUTRIENT CONCENTRATION DATA FOR 1976 SITE 5

SITE	DATE	HOUR	MIN	NH4-N	NO3-N	PO4-P	TDS	TDS+SEDT	CL-
				PPM					
5	7/19/76	13	40	0.01	5.70	0.026	350	396	17.72
5	7/26/76	13	25	0.04	4.90	0.033	334	398	18.16
5	8/ 2/76	11	10	0.0	5.50	0.029	330	437	21.60
5	8/ 9/76	13	25	0.0	5.82	0.027	333	382	19.82
5	8/16/76	12	40	0.11	6.86	0.034	324	481	19.74
5	8/23/76	13	15	0.18	6.70	0.061	316	427	21.50
5	8/30/76	14	0	0.10	7.44	0.047	319	419	17.68
5	9/ 7/76	12	5	0.16	7.80	0.038	318	441	18.59
5	9/13/76	14	35	0.14	7.42	0.033	364	457	18.89
5	9/20/76	15	57	0.12	6.20	0.038	315	479	22.15
5	9/28/76	15	20	0.12	7.67	0.037	346	474	18.96
5	10/ 4/76	15	30	0.0	7.49	0.199	364	479	25.26
5	10/11/76	15	40	0.23	7.80	0.027	421	497	18.78
5	10/18/76	13	45	0.14	8.81	0.020	360	435	19.58
5	10/25/76	15	0	0.17	6.90	0.019	313	451	19.86
5	11/ 1/76	15	0	0.03	5.66	0.013	344	618	18.01
5	11/ 9/76	14	30	0.26	8.81	0.023	379	410	17.40
5	11/15/76	15	0	0.25	10.87	0.017	352	874	19.06
5	11/23/76	15	20	0.18	10.28	0.004	356	403	21.11
5	12/ 2/76	14	30	1.04	21.01	0.027	629	844	54.08

TABLE F2- 6. FOUR MILE CREEK WATERSHED RUNOFF NUTRIENT CONCENTRATION DATA FOR 1976 SITE 6

SITE	DATE	HOUR	MIN	NH4-N	NO3-N	PO4-P	TDS	TDS+SEDT	CL-
				PPM					
6	7/19/76	13	35	0.02	5.90	0.029	319	371	11.09
6	7/26/76	13	20	0.0	4.60	0.033	307	496	9.56
6	8/ 2/76	13	30	0.0	3.40	0.032	285	360	12.80
6	8/ 9/76	13	30	0.01	2.70	0.019	300	344	7.83
6	8/16/76	12	35	0.10	4.49	0.002	280	437	8.98
6	8/23/76	13	10	0.55	3.80	0.065	284	375	13.41
6	8/30/76	13	50	0.21	6.17	0.010	261	293	6.42
6	9/ 7/76	12	10	0.13	4.85	0.019	277	290	6.17

TABLE F2- 7. FOUR MILE CREEK WATERSHED RUNOFF NUTRIENT CONCENTRATION DATA FOR 1976 SITE 7

SITE	DATE	HOUR	MIN	NH4-N	NO3-N	PO4-P	TDS	TDS+SEDT	CL-
				PPM					
7	4/15/76	14	38	0.06	10.14	0.093	326	438	
7	4/19/76	13	20	0.18	8.56	0.640	377	377	21.23
7	4/23/76	13	46	0.51	3.20	0.776	188	775	10.05
7	6/14/76	10	20	0.56	22.60	0.967	386	426	15.78

TABLE F2- 8. FOUR MILE CREEK WATERSHED RUNOFF NUTRIENT CONCENTRATION DATA FOR 1976 SITE 8

SITE	DATE	HOUR	MIN	NH4-N	NO3-N	PO4-P	TDS	TDS+SEDT	CL-
				PPM					
8	2/27/76	13	0	0.40	5.12	0.414	213	469	9.38
8	2/27/76	15	41	0.39	5.39	0.518	180	842	11.62
8	2/28/76	15	30	0.27	7.38	0.324	264	253	16.00
8	3/ 9/76	15	50	0.26	2.55	0.183	103	908	4.48
8	3/10/76	10	30	0.53	6.10	0.402	159	518	11.77
8	3/10/76	13	0	0.13	5.48	0.102	276	383	12.62
8	3/10/76	16	35	0.27	5.90	0.177	157	981	10.98
8	6/14/76	23	10	0.21	16.43	0.101	287	382	5.00

TABLE F2- 9. FOUR MILE CREEK WATERSHED RUNOFF NUTRIENT CONCENTRATION DATA FOR 1977 SITE 1

SITE	DATE	HOUR	MIN	NH4-N	NO3-N	PO4-P	TDS	TDS+SEDT	CL-
				----------	----------	PPM ----------			
1	4/19/77	17	13	9.44	1.21	1.632	149	101100	17.67
1	4/19/77	17	14	5.61	1.33	2.204	183	97440	16.73
1	4/19/77	17	15	6.32	1.21	1.351	151	95550	17.92
1	4/19/77	17	16	8.11	1.31	1.631	183	90170	17.83
1	4/19/77	17	17	5.50	1.30	2.100	171	87380	16.76
1	4/19/77	17	18	4.85	1.45	1.895	144	83080	16.05
1	4/19/77	17	23	4.11	1.09	1.612	131	50770	11.89
1	4/19/77	17	26	4.29	0.89	0.748	122	47130	10.77
1	4/19/77	17	30	2.37	0.77	1.240	99	24900	7.27
1	4/19/77	17	33	2.77	0.81	1.741	117	24560	7.61
1	4/19/77	17	36	2.38	0.84	1.260	103	29830	7.73
1	4/19/77	17	39	2.83	0.72	1.699	81	22960	7.38
1	4/19/77	17	42	2.96	0.76	1.699	74	19410	7.04
1	4/19/77	17	45	2.73	0.81	1.771	75	17890	6.99
1	4/19/77	17	48	2.96	0.75	1.941	85	17940	6.81
1	4/19/77	17	51	2.90	0.79	1.798	85	13770	6.84
1	4/19/77	17	54	3.81	0.67	2.031	79	12650	6.81
1	8/15/77	22	16	0.88	0.37	0.068	953	20960	0.57
1	8/15/77	22	18	0.04	0.32	0.066	43	26590	1.11
1	8/15/77	22	19	0.10	0.43	0.043	1165	24120	1.66
1	8/15/77	22	21	0.10	0.36	0.051	438	36070	2.45
1	8/15/77	22	23	0.0	0.27	0.047	55	35250	1.33
1	8/15/77	22	25	0.0	0.13	0.050	339	25850	1.02
1	8/15/77	22	26	0.76	0.30	0.148	46	21160	1.03
1	8/15/77	22	27	0.0	0.18	0.090	33	17700	0.89
1	8/15/77	22	29	0.0	0.27	0.087	34	14450	0.95
1	8/15/77	22	31	0.0	0.36	0.107	80	9904	0.92
1	8/15/77	22	33	0.0	0.31	0.109	40	9091	1.13
1	8/15/77	22	35	0.0	0.24	0.103	45	8696	1.03
1	8/15/77	22	37	0.0	0.24	0.105	34	7473	0.97
1	8/15/77	22	39	0.0	0.20	0.113	23	6560	0.73
1	8/15/77	22	41	0.0	0.19	0.140	23	5625	1.05
1	8/15/77	22	43	0.0	0.17	0.131	29	5006	1.47
1	8/15/77	22	45	0.0	0.18	0.131	21	4524	0.95
1	8/15/77	22	47	0.0	0.16	0.125	21	4227	1.47
1	8/28/77	0	41	0.0	0.04	0.021	85	2603	2.91
1	8/28/77	0	43	0.10	0.01	0.056	84	2647	2.32
1	8/28/77	0	46	0.01	0.01	0.028	78	2652	3.12
1	8/28/77	0	49	0.01	0.08	0.017	99	2303	4.47
1	8/28/77	0	54	0.55	0.01	0.071	68	1524	2.08
1	8/28/77	1	1	0.0	0.0	0.071	85	1103	2.69
1	8/28/77	1	9	0.0	0.0	0.073	85	790	2.47
1	9/18/77	5	47	0.0	0.39	0.055	129	1442	2.28
1	9/18/77	5	59	0.03	0.33	0.073	99	2164	1.76
1	9/18/77	6	8	0.0	0.26	0.402	136	1739	1.76
1	9/18/77	6	21	0.0	0.22	0.113	78	1001	1.51
1	9/18/77	6	40	0.02	0.21	0.283	101	231	2.63
1	9/18/77	7	19	0.03	0.23	0.088	77	2151	1.61

TABLE F2-10. FOUR MILE CREEK WATERSHED RUNOFF NUTRIENT CONCENTRATION DATA FOR 1977 SITE 2

SITE	DATE	HOUR	MIN	NH4-N	NO3-N	PO4-P	TDS	TDS+SEDT	CL-
				PPM					
2	6/17/77	14	12	0.0	1.50	0.011	53	11690	2.95
2	8/15/77	22	21	0.04	0.41	0.042	203	32210	1.08
2	8/15/77	22	23	0.06	0.34	0.044	199	33840	1.08
2	8/15/77	22	24	0.0	0.20	0.062	289	44590	0.98
2	8/15/77	22	26	0.0	0.15	0.034	60	36700	0.76
2	8/15/77	22	28	0.0	0.14	0.023	53	25920	0.76
2	8/15/77	22	30	0.0	0.13	0.033	52	21330	0.76
2	8/15/77	22	32	0.0	0.14	0.044	50	14210	0.89
2	8/15/77	22	34	0.26	0.14	0.056	39	9999	0.73
2	8/15/77	22	36	0.03	0.21	0.036	51	8756	1.03
2	8/15/77	22	38	0.05	0.21	0.065	57	7905	1.20
2	9/18/77	6	10	0.0	0.39	0.029	79	1994	1.26
2	9/18/77	6	13	0.0	0.39	0.037	115	1716	1.19
2	9/18/77	6	21	1.01	0.37	0.033	73	1559	1.29
2	9/18/77	6	32	0.0	0.39	0.042	59	1196	1.26

TABLE F2-11. FOUR MILE CREEK WATERSHED RUNOFF NUTRIENT CONCENTRATION DATA FOR 1977 SITE 3

SITE	DATE	HOUR	MIN	NH4-N	NO3-N	PO4-P	TDS	TDS+SEDT	CL-
				ppm					
3	9/17/77	19	58	0.86	0.62	1.602	96	459	5.39
3	9/17/77	19	59	1.04	0.31	1.221	75	308	2.63
3	9/17/77	20	15	0.59	0.39	0.867	54	370	1.61

TABLE F2-12. FOUR MILE CREEK WATERSHED RUNOFF NUTRIENT CONCENTRATION DATA FOR 1977 SITE 4

SITE	DATE	HOUR	MIN	NH4-N	NO3-N	PO4-P	TDS	TDS+SEDT	CL-
				ppm					
4	2/11/77	13	0	0.71	1.40	0.070	90	78	3.16
4	2/12/77	15	20	0.72	1.72	0.166	122	81	4.19
4	2/13/77	15	15	0.75	1.56	0.165	123	198	4.19
4	2/14/77	15	30	1.01	3.63	0.520	226	358	10.35
4	2/15/77	17	55	1.04	4.56	0.394	275	325	16.87
4	2/16/77	18	12	1.84	6.42	0.329	358	479	20.66
4	2/17/77	16	7	3.08	6.13	0.231	364	425	21.86
4	2/18/77	17	56	1.06	4.47	0.174	299	391	19.61
4	2/19/77	18	15	2.13	5.50	0.180	353	422	23.86
4	2/20/77	18	8	2.29	5.43	0.169	333	407	20.88
4	2/21/77	18	4	1.71	4.75	0.160	301	388	18.22
4	2/22/77	17	55	1.00	4.57	0.158	272	356	16.29
4	2/23/77	18	1	0.79	3.01	0.309	192	392	9.41
4	2/24/77	8	35	0.94	2.25	0.418	268	367	12.57
4	2/24/77	16	0	0.82	2.21	0.396	296	305	13.75
4	2/25/77	9	20	0.91	1.57	0.505	330	307	14.98
4	2/25/77	18	5	0.77	1.61	0.370	287	298	14.32
4	2/26/77	18	3	0.69	1.85	0.249	399	445	14.18
4	2/27/77	18	0	0.74	2.16	0.184	315	347	14.45
4	2/28/77	17	52	0.79	2.06	0.151	297	307	14.18
4	3/ 1/77	18	11	0.91	2.23	0.106	399	371	15.29
4	3/ 2/77	17	55	0.94	2.52	0.092	318	339	15.23
4	3/ 3/77	17	57	0.64	2.48	0.090	285	309	8.96
4	3/ 4/77	17	51	0.50	2.06	0.147	211	294	9.20
4	3/ 5/77	17	54	0.60	1.65	0.102	217	364	9.68
4	3/ 6/77	17	55	0.62	1.22	0.068	252	243	9.32
4	3/ 7/77	17	47	0.80	1.57	0.039	241	308	13.91
4	3/ 8/77	17	57	0.91	1.90	0.028	228	322	18.51
4	3/ 9/77	18	16	0.90	1.06	0.025	244	339	14.39
4	3/10/77	18	12	0.85	1.49	0.027	219	314	13.02
4	3/11/77	16	6	0.82	1.30	0.062	220	698	11.36
4	3/12/77	7	21	2.15	4.13	0.040	300	1371	21.94
4	3/12/77	18	4	0.83	0.05	0.125	479	950	34.65
4	3/13/77	8	7	0.66	3.63	0.047	358	522	27.37
4	3/13/77	18	20	0.44	3.42	0.099	358	509	29.04
4	3/14/77	18	3	0.42	2.63	0.033	349	454	29.78
4	3/15/77	18	14	2.00	2.17	0.016	409	496	27.19
4	3/16/77	18	20	1.72	1.71	0.002	421	532	26.27
4	3/17/77	17	46	1.75	1.83	0.028	388	541	20.82
4	3/18/77	17	40	1.49	2.05	0.091	378	528	45.01
4	3/19/77	18	0	1.07	1.80	0.021	393	545	18.73
4	3/20/77	17	57	1.11	2.28	0.013	381	572	19.32
4	3/21/77	17	59	0.94	2.04	0.011	383	479	18.09
4	3/22/77	17	50	0.79	2.02	0.026	362	473	21.10
4	3/23/77	18	11	0.48	2.54	0.029	398	522	20.16
4	3/24/77	18	7	0.35	2.20	0.027	394	534	21.94
4	3/25/77	18	25	0.20	1.80	0.021	390	525	21.80
4	3/26/77	18	8	0.11	1.45	0.016	402	541	21.55
4	3/27/77	17	54	0.13	1.06	0.021	387	384	19.86
4	3/28/77	18	15	0.14	1.10	0.020	397	417	22.51
4	3/29/77	18	12	0.31	3.33	0.062	407	536	40.66
4	3/30/77	18	1	0.06	3.10	0.165	522	614	37.02
4	3/31/77	17	58	2.43	3.12	0.028	432	505	37.59
4	4/ 1/77	18	25	0.19	2.28	0.013	449	579	44.18
4	4/ 2/77	18	7	0.15	2.20	0.035	324	495	23.31
4	4/ 3/77	18	0	0.16	4.27	0.334	527	668	25.23
4	4/ 4/77	18	22	3.41	2.64	0.117	355	618	21.73
4	4/ 5/77	18	6	0.44	10.05	0.916	574	777	49.39
4	4/ 6/77	17	57	0.41	6.11	0.089	432	559	36.63
4	4/ 7/77	18	36	0.03	4.24	0.038	405	485	36.24
4	4/ 8/77	18	28	0.03	2.29	0.027	378	478	35.85
4	4/ 9/77	18	15	0.05	1.15	0.027	386	482	41.57
4	4/10/77	18	4	0.05	0.69	0.024	344	454	33.53
4	4/11/77	18	30	0.09	0.22	0.033	343	418	30.11
4	4/12/77	18	0	0.06	0.09	0.036	394	467	28.98
4	4/13/77	17	21	0.07	0.02	0.046	392	408	24.91
4	4/14/77	17	51	0.03	0.06	0.031	331	443	22.97
4	4/15/77	17	50	0.09	0.07	0.036	322	423	31.81
4	4/16/77	18	25	0.04	0.0	0.041	340	421	26.20
4	4/17/77	18	35	0.04	0.0	0.022	338	393	26.01
4	4/18/77	19	14	0.05	0.0	0.021	349	433	23.45
4	4/19/77	17	40	0.08	0.0	0.017	325	439	20.58
4	4/19/77	23	4	0.08	0.05	0.022	342	522	19.87
4	4/20/77	1	17	0.11	0.03	0.026	366	411	18.46
4	4/20/77	4	38	0.19	0.35	0.019	369	521	19.87
4	4/20/77	7	47	0.88	1.63	0.033	373	936	23.09
4	4/20/77	10	41	2.21	1.99	0.050	340	1639	22.28
4	4/20/77	14	43	2.19	2.44	0.043	391	1399	18.23
4	4/20/77	17	40	2.59	2.92	0.024	459	1245	24.51
4	4/21/77	17	45	0.18	0.93	0.057	423	481	20.42
4	4/22/77	18	40	0.09	0.89	0.022	417	517	32.48
4	4/23/77	18	0	0.10	0.46	0.016	384	487	32.02
4	4/24/77	18	40	0.09	0.22	0.012	358	466	33.87
4	4/25/77	17	57	0.29	0.09	0.005	351	445	27.84
4	4/26/77	18	18	0.06	0.10	0.015	351	472	32.07
4	4/27/77	18	22	0.07	0.11	0.014	364	498	30.51
4	4/28/77	18	7	0.10	0.06	0.022	315	463	28.39
4	4/29/77	20	0	0.11	0.05	0.017	254	437	19.54
4	4/30/77	18	33	0.11	0.03	0.016	316	387	29.30
4	5/ 1/77	18	7	0.26	0.0	0.018	329	448	27.91
4	5/ 2/77	17	48	0.23	0.03	0.025	270	357	23.26
4	5/ 3/77	17	28	0.64	0.02	0.018	284	354	26.14
4	5/ 4/77	17	31	0.39	0.11	0.022	237	469	23.35
4	5/ 5/77	17	58	0.26	0.24	0.030	241	417	27.16
4	5/ 6/77	16	27	0.46	0.08	0.020	250	457	25.33
4	5/ 7/77	17	55	0.32	0.12	0.022	367	453	28.04
4	5/ 8/77	18	59	0.56	0.11	0.024	385	469	31.96
4	5/ 9/77	18	7	0.60	0.14	0.020	363	471	27.94
4	5/10/77	19	0	0.14	0.09	0.051	387	465	20.09
4	5/11/77	20	27	0.22	16.90	0.031	385	463	26.52
4	5/12/77	17	15	1.26	2.40	0.031	367	424	1.74
4	5/13/77	17	55	0.61	0.17	0.023	393	436	28.70
4	5/14/77	17	53	0.63	0.16	0.018	370	415	29.06
4	5/15/77	17	25	0.79	0.23	0.020	401	447	29.43

TABLE F2-12. CONTINUED

SITE	DATE	HOUR	MIN	NH4-N	NO3-N	PO4-P	TDS	TDS+SEDT	CL-
				PPM					
4	5/16/77	16	8	0.82	0.34	0.018	368	408	34.39
4	5/17/77	17	40	0.46	0.36	0.012	457	539	34.72
4	5/18/77	17	39	0.47	0.31	0.014	437	572	23.86
4	5/19/77	18	1	0.42	0.27	0.014	435	593	23.76
4	5/20/77	17	31	0.60	0.21	0.018	440	571	25.18
4	5/21/77	18	13	0.57	0.17	0.023	388	577	32.72
4	5/22/77	17	10	0.99	3.02	0.131	279	704	12.80
4	5/23/77	18	12	0.83	1.34	0.102	263	469	10.26
4	5/24/77	18	0	1.29	0.45	0.146	303	504	18.57
4	5/25/77	17	32	3.24	0.15	0.029	385	509	39.52
4	5/26/77	17	42	2.45	0.17	0.076	351	512	31.88
4	5/27/77	17	48	2.53	0.19	0.065	335	532	31.41
4	5/28/77	17	34	0.75	0.17	0.043	316	463	32.82
4	5/29/77	18	12	2.51	0.14	0.020	391	534	40.63
4	5/30/77	17	27	1.97	0.12	0.015	405	584	32.82
4	5/31/77	17	34	1.74	0.13	0.052	391	565	19.34
4	6/ 1/77	17	34	0.87	0.17	0.020	374	515	20.05
4	6/ 2/77	17	27	0.44	0.14	0.035	358	440	23.13
4	6/ 3/77	17	35	0.12	0.09	0.030	330	452	29.58
4	6/ 4/77	17	57	0.05	0.0	0.033	307	403	34.33
4	6/ 5/77	17	10	0.11	0.0	0.021	310	416	37.14
4	6/ 6/77	17	4	0.06	0.0	0.034	353	450	38.62
4	6/ 9/77	19	55	0.18	0.0	0.111	364	509	41.91
4	6/10/77	19	17	0.04	0.0	0.056	374	496	51.03
4	6/11/77	18	28	0.08	0.0	0.078	402	533	61.15
4	6/12/77	17	10	0.04	0.0	0.070	398	496	61.15
4	6/13/77	18	40	0.04	0.0	0.049	417	496	68.87
4	6/14/77	17	47	0.08	0.0	0.083	418	482	70.02
4	6/16/77	18	48	0.13	0.0	0.145	423	473	79.17
4	6/17/77	17	42	0.93	1.60	0.200	321	562	42.22
4	6/18/77	17	35	0.69	0.84	0.059	301	371	18.55
4	6/19/77	18	30	0.68	0.09	0.044	292	310	14.95
4	6/21/77	17	35	0.56	0.05	0.026	469	503	15.98
4	6/23/77	18	53	0.82	0.04	0.029	440	570	22.23
4	6/25/77	17	40	0.53	0.01	0.025	422	546	22.86
4	6/27/77	18	6	0.22	0.03	0.012	408	478	20.99
4	7/ 7/77	19	4	0.33	1.45	0.196	315	567	8.05
4	7/ 8/77	7	28	0.49	1.11	0.070	347	1141	4.88
4	7/ 8/77	18	39	0.65	0.53	0.070	389	812	6.72
4	7/ 9/77	18	59	1.11	0.16	0.055	442	654	11.67
4	7/10/77	17	15	0.99	0.13	0.046	433	663	14.34
4	7/12/77	18	27	0.11	0.0	0.121	348	599	14.07
4	7/18/77	17	45	1.15	0.33	0.085	416	572	18.67
4	7/19/77	13	5	0.89	0.24	0.101	425	559	11.52
4	7/20/77	17	43	0.77	1.47	0.103	234	309	19.40
4	7/21/77	17	43	0.92	1.45	0.095	270	325	18.86
4	7/23/77	18	5	0.44	1.48	0.101	263	352	18.77
4	7/28/77	21	58	0.65	2.32	0.179	71	911	10.50
4	7/29/77	5	10	0.39	1.98	0.123	38		9.85
4	7/29/77	12	30	0.35	2.03	0.131	36	620	8.74
4	7/29/77	18	16	0.37	1.93	0.174	81	360	8.90
4	7/30/77	8	40	0.41	1.83	0.148	115	428	10.63
4	7/30/77	17	49	0.61	1.85	0.087	168	436	8.29
4	8/ 1/77	17	25	0.92	1.16	0.080	206	346	9.95
4	8/ 1/77	20	40	0.92	1.27	0.066	196	337	9.48
4	8/ 1/77	22	19	0.91	1.30	0.065	195	338	9.83
4	8/ 2/77	8	6	0.93	1.26	0.085	200	492	10.98
4	8/ 2/77	17	50	0.37	0.10	0.077	296	368	15.97
4	8/ 3/77	18	16	0.39	0.47	0.070	304	734	6.82
4	8/ 4/77	17	52	0.87	0.30	0.081	316	593	8.20
4	8/ 5/77	14	31	0.99	0.18	0.054	235	463	10.10
4	8/ 5/77	18	4	0.77	0.57	0.079	190	476	11.52
4	8/ 6/77	8	20	0.34	0.02	0.086	212	280	12.83
4	8/ 6/77	18	21	0.32	0.34	0.084	322	450	6.76
4	8/ 7/77	18	3	0.48	0.35	0.084	358	425	6.43
4	8/ 8/77	6	20	0.41	1.08	0.145	323	1179	4.35
4	8/ 8/77	8	27	0.32	1.23	0.154	189	873	6.51
4	8/ 8/77	10	40	0.31	1.86	0.170	251	670	4.93
4	8/ 8/77	15	1	0.19	1.11	0.144	250	511	11.67
4	8/ 8/77	18	3	0.32	0.08	0.098	252	486	8.79
4	8/ 9/77	7	33	0.15	0.65	0.066	165	557	4.18
4	8/ 9/77	10	40	0.18	0.68	0.077	189	673	5.38
4	8/ 9/77	18	31	0.29	1.10	0.072	246	469	5.58
4	8/10/77	7	35	0.21	0.65	0.077	257	557	4.93
4	8/10/77	17	58	0.34	0.96	0.064	285	290	7.35
4	8/11/77	17	45	0.40	0.55	0.063	341	377	11.30
4	8/12/77	17	45	0.33	0.33	0.054	219	312	17.40
4	8/13/77	17	45	0.90	0.26	0.027	361	217	16.73
4	8/14/77	18	0	1.01	0.22	0.028	222	321	16.35
4	8/15/77	23	7	0.26	0.33	0.067	106	1490	4.15
4	8/15/77	23	56	0.17	0.45	0.041	75	1952	2.46
4	8/16/77	1	28	0.09	1.00	0.081	54	891	1.60
4	8/16/77	2	25	0.12	1.68	0.102	103	636	2.68
4	8/16/77	3	52	0.25	2.39	0.200	149	608	5.02
4	8/16/77	8	1	0.11	0.99	0.092	78	1406	2.47
4	8/16/77	11	18	0.10	1.23	0.082	91	922	2.09
4	8/16/77	17	5	0.14	2.42	0.249	125	559	5.48
4	8/16/77	19	36	0.04	2.69	0.209	188	510	5.02
4	8/16/77	22	11	0.05	3.19	0.186	231	509	6.68
4	8/17/77	9	15	0.57	2.19	0.533	165	646	12.55
4	8/17/77	18	37	1.50	4.05	0.799	233	525	11.57
4	8/18/77	9	27	0.31	2.12	0.321	213	368	8.49
4	8/18/77	18	11	0.27	4.41	0.216	333	438	9.19
4	8/19/77	18	35	0.28	2.80	0.146	428	457	16.59
4	8/20/77	18	0	0.24	2.32	0.082	488	473	26.36
4	8/21/77	18	59	0.28	1.49	0.067	540	450	25.45
4	8/22/77	17	40	0.26	0.72	0.059	521	511	25.45
4	8/23/77	18	30	0.36	0.36	0.037	500	592	27.45
4	8/24/77	17	55	0.31	0.23	0.034	501	589	29.82
4	8/26/77	18	10	0.25	0.24	0.047	454	660	34.55
4	8/27/77	18	1	0.19	0.15	0.056	378	547	16.31
4	8/28/77	7	25	0.09	2.00	0.160	210	458	10.54
4	8/28/77	12	50	0.17	1.61	0.198	250	448	14.32
4	8/28/77	22	5	0.36	0.96	0.218	281	506	16.40

TABLE F2-12. CONTINUED

SITE	DATE	HOUR	MIN	NH4-N	NO3-N	PO4-P	TDS	TDS+SEDT	CL-
				PPM					
4	8/29/77	7	20	0.33	1.49	0.177	672	899	12.34
4	8/29/77	18	17	0.17	2.28	0.159	199	273	11.61
4	8/30/77	18	10	0.19	2.60	0.121	275	400	6.01
4	8/31/77	18	40	1.65	0.67	0.160	420	584	38.21
4	8/31/77	23	29	1.54	0.84	0.184	422	539	37.23
4	9/ 1/77	0	7	1.62	0.84	0.206	418	519	36.46
4	9/ 1/77	0	53	1.40	0.83	0.228	399	510	35.72
4	9/ 1/77	2	0	1.37	0.82	0.230	376	508	33.91
4	9/ 1/77	4	49	0.61	1.47	0.222	261	557	17.12
4	9/ 1/77	7	48	0.18	1.85	0.182	101	547	5.76
4	9/ 1/77	11	1	0.12	2.60	0.236	116	337	3.83
4	9/ 1/77	15	18	0.13	4.50	0.302	213	340	10.39
4	9/ 1/77	18	14	0.17	5.38	0.359	228	349	10.29
4	9/ 2/77	8	32	0.23	5.63	0.170	228	327	9.66
4	9/ 2/77	18	0	0.17	5.50	0.170	318	360	16.02
4	9/ 3/77	17	50	0.17	3.28	0.089	289	396	18.84
4	9/ 4/77	16	0	0.23	2.78	0.111	321	781	19.43
4	9/ 5/77	19	3	0.16	2.34	0.110	313	469	17.27
4	9/ 6/77	19	45	0.15	1.75	0.062	335	353	17.84
4	9/ 7/77	18	51	0.17	1.02	0.060	343	868	19.78
4	9/ 8/77	18	59	0.14	0.60	0.068	354	782	21.23
4	9/ 9/77	18	25	0.09	0.30	0.060	692	772	29.65
4	9/10/77	18	15	0.08	0.28	0.039	616	754	26.66
4	9/12/77	18	25	0.15	0.24	0.039	644	840	20.87
4	9/14/77	17	16	0.23	0.14	0.042	304	711	25.12
4	9/16/77	18	13	0.19	0.10	0.044	607	1038	27.29
4	9/17/77	23	3	0.33	0.92	0.133	223	3741	3.14
4	9/18/77	0	36	0.32	2.18	0.362	334	2480	19.66
4	9/18/77	1	56	0.24	2.79	0.532	383	1716	12.74
4	9/18/77	4	0	0.32	4.18	0.437	539	644	11.20
4	9/18/77	7	45	0.11	5.87	0.330	585	703	5.89
4	9/18/77	12	14	0.12	7.92	0.267	487	434	6.88
4	9/18/77	18	18	0.08	11.24	0.232	696	873	9.77
4	9/18/77	22	30	0.07	12.73	0.223	877	869	11.74
4	9/19/77	9	17	1.12	12.22	0.745	969	1231	22.38
4	9/19/77	18	11	0.17	12.83	0.437	736	953	16.80
4	9/20/77	18	45	0.27	10.89	0.200	374	364	15.63
4	9/21/77	18	51	0.17	11.47	0.135	339	496	21.82
4	9/22/77	17	35	0.24	10.00	0.141	356	495	25.98
4	9/23/77	17	25	0.27	9.38	0.122	332	462	20.24
4	9/24/77	18	26	0.43	8.53	0.226	403	445	20.43
4	9/25/77	18	1	0.39	10.27	0.210	339	474	21.98
4	9/26/77	17	56	0.22	10.18	0.152	323	479	21.82
4	9/27/77	18	16	0.08	8.87	0.043	323	419	15.00
4	9/28/77	17	30	0.06	7.69	0.039	327	422	20.97
4	9/29/77	18	9	0.09	6.87	0.040	332	458	19.52
4	9/30/77	18	5	0.09	5.56	0.035	297	397	14.07
4	10/ 1/77	18	49	0.07	7.44	0.125	327	377	13.39
4	10/ 2/77	17	25	0.07	9.56	0.110	389	458	24.35
4	10/ 3/77	18	37	0.06	9.56	0.053	375	434	24.03
4	10/ 4/77	18	44	0.08	9.60	0.036	342	422	18.04
4	10/ 5/77	17	53	0.17	9.73	0.112	340	418	18.59
4	10/ 6/77	18	22	0.09	8.43	0.030	343	419	19.01
4	10/ 7/77	17	40	0.23	9.79	0.152	796	821	17.76
4	10/ 8/77	17	51	0.35	11.81	0.240	875	1048	22.85
4	10/ 9/77	18	18	0.06	12.92	0.129	368	425	18.81
4	10/10/77	17	49	0.15	12.52	0.141	415	457	18.67
4	10/11/77	18	16	0.0	12.63	0.052	561	618	17.76
4	10/12/77	18	6	0.0	10.69	0.043	379	486	17.33
4	10/13/77	18	26	0.0	10.82	0.032	419	499	17.76
4	10/14/77	18	43	0.0	10.76	0.023	577	730	18.31
4	10/15/77	19	25	0.0	10.36	0.025	436	478	17.25
4	10/16/77	17	45	0.0	9.40	0.021	712	766	17.79
4	10/17/77	17	46	0.0	9.25	0.024	704	783	17.63
4	10/18/77	17	28	0.06	8.62	0.031	321	425	11.76
4	10/19/77	18	30	0.11	7.26	0.019	291	408	18.59
4	10/20/77	18	32	0.08	7.21	0.034	313	402	16.34
4	10/21/77	17	58	0.11	6.57	0.018	260	387	17.14
4	10/22/77	17	24	0.08	5.95	0.028	270	375	17.09
4	10/23/77	18	12	0.13	4.66	0.333	229	376	18.50
4	10/24/77	17	56	0.14	14.50	0.322	355	439	11.62
4	10/25/77	18	20	0.11	18.93	0.222	374	436	17.49
4	10/26/77	18	0	0.12	18.13	0.097	347	431	18.23
4	10/27/77	18	58	0.09	15.64	0.055	318	436	17.23
4	10/28/77	18	9	0.10	15.70	0.047	318	403	17.70
4	10/29/77	18	35	0.10	14.79	0.053	311	397	16.49
4	10/30/77	17	36	0.09	13.57	0.045	311	411	16.89
4	10/31/77	17	59	0.10	13.06	0.111	343	386	17.23
4	11/ 1/77	17	44	0.14	14.56	0.102	323	391	17.90
4	11/ 2/77	18	0	0.11	15.33	0.068	310	380	17.61
4	11/ 3/77	18	54	0.09	15.10	0.052	322	388	18.86
4	11/ 4/77	18	14	0.09	13.52	0.041	305	366	21.19
4	11/ 5/77	17	42	0.09	13.62	0.041	303	369	20.40
4	11/ 6/77	17	36	0.10	13.31	0.041	307	387	20.40
4	11/ 7/77	18	3	0.12	13.62	0.037	330	368	19.78
4	11/ 8/77	18	35	0.12	13.52	0.016	313	345	17.82
4	11/ 9/77	17	53	0.12	13.44	0.079	359	383	21.63
4	11/10/77	18	24	0.09	13.00	0.055	366	438	17.67
4	11/11/77	18	18	0.08	12.41	0.019	374	424	20.24
4	11/12/77	18	13	0.11	12.28	0.062	366	420	20.09
4	11/13/77	18	5	0.09	12.44	0.041	360	400	17.55
4	11/14/77	18	16	0.07	12.72	0.009	239	318	15.95
4	11/15/77	18	27	0.07	12.20	0.005	222	302	16.69
4	11/16/77	18	28	0.20	11.40	0.012	237	300	18.65
4	11/17/77	18	36	0.09	11.67	0.008	268	340	16.29
4	11/18/77	18	25	0.10	11.35	0.013	261	320	15.98
4	11/19/77	18	7	0.07	10.61	0.032	266	361	15.40
4	11/20/77	17	35	0.06	10.06	0.058	281	366	15.26
4	11/21/77	18	25	0.02	12.69	0.025	294	298	18.39
4	11/22/77	18	8	0.09	11.38	0.115	289	282	19.81
4	11/23/77	17	57	0.01	11.08	0.035	276	274	18.01
4	11/24/77	17	55	0.02	11.41	0.031	291	427	17.70
4	11/25/77	17	30	0.06	11.34	0.014	302	440	18.36
4	11/26/77	17	42	0.14	11.90	0.037	289	477	18.74

TABLE F2-12. CONCLUDED

SITE	DATE	HOUR	MIN	NH4-N	NO3-N	PO4-P	TDS	TDS+SEDT	CL-
				PPM					
4	11/27/77	17	41	0.02	10.70	0.011	284	454	18.71
4	11/28/77	17	57	0.13	10.98	0.017	255	431	16.53
4	11/29/77	17	58	0.04	10.64	0.011	274	428	18.74
4	11/30/77	18	25	0.05	9.72	0.017	280	385	17.65
4	12/ 1/77	17	40	0.04	9.27	0.022	265	366	17.61
4	12/ 2/77	17	38	0.04	8.58	0.023	271	355	16.59
4	12/ 3/77	17	20	0.54	8.58	0.025	284	359	17.99
4	12/ 4/77	17	40	0.04	7.12	0.024	297	355	18.12
4	12/ 7/77	17	50	0.08	5.72	0.029	265	331	13.98
4	12/13/77	18	13	0.15	6.06	0.024	237	323	12.41
4	12/14/77	18	9	0.19	6.35	0.028	229	307	12.06
4	12/16/77	17	50	0.22	7.05	0.059	150	297	12.43
4	12/18/77	17	40	0.50	15.71	0.136	259	382	18.05
4	12/20/77	17	55	0.20	16.30	0.051	237	344	17.47
4	12/22/77	17	56	0.10	15.17	0.044	262	353	15.68
4	12/23/77	17	51	0.12	15.46	0.036	300	372	17.19
4	12/24/77	17	48	0.10	15.71	0.033	268	375	18.36
4	12/25/77	18	1	0.18	16.19	0.049	278	399	21.28
4	12/26/77	17	59	0.24	15.71	0.049	264	389	18.42
4	12/28/77	17	56	0.09	14.93	0.022	236	390	16.59
4	12/30/77	17	19	0.08	13.68	0.020	216	385	16.59

TABLE F2-13. FOUR MILE CREEK WATERSHED RUNOFF NUTRIENT CONCENTRATION DATA FOR 1977 SITE 5

SITE	DATE	HOUR	MIN	NH4-N	NO3-N	PO4-P	TDS	TDS+SEDT	CL-
				PPM					
5	2/15/77	17	45	0.63	5.60	0.570	240	342	15.85
5	2/24/77	14	0	0.63	3.53	0.479	198	291	11.63
5	3/ 8/77	16	0	0.74	1.63	0.097	335	592	12.84
5	3/15/77	14	0	2.54	3.24	0.060	397	389	30.71
5	3/22/77	13	45	0.69	4.30	0.029	419	441	27.74
5	3/29/77	14	0	4.44	2.24	1.160	681	840	54.13
5	4/ 6/77	12	0	0.37	7.26	0.139	437	497	56.24
5	4/13/77	16	0	0.11	0.0	0.054	380	406	10.92
5	4/18/77	13	48	0.06	1.78	0.076	356	371	35.65
5	4/19/77	19	24	0.12	2.20	0.076	311	352	28.05
5	4/19/77	22	55	1.87	2.34	0.061	225	5543	16.89
5	4/19/77	23	50	1.66	3.06	0.059	189	4928	10.59
5	4/20/77	1	10	3.93	6.60	0.086	611	3128	25.09
5	4/20/77	7	39	1.39	4.27	0.111	396	1093	13.45
5	4/20/77	10	35	0.92	3.94	0.114	468	566	20.76
5	4/26/77	16	30	0.07	3.90	0.033	487	468	34.05
5	5/ 2/77	13	30	0.07	1.98	0.022	309	336	26.24
5	5/10/77	16	35	0.09	1.12	0.017	265	309	21.42
5	5/17/77	12	30	1.53	0.22	0.045	380	892	28.44
5	5/17/77	16	0	0.45	0.30	0.016	341	438	32.09
5	5/26/77	16	35	0.02	1.97	0.048	244	435	18.25
5	6/ 2/77	15	0	0.02	1.87	0.074	217	343	18.41
5	6/ 7/77	14	10	0.68	0.23	0.0	303	336	18.25
5	6/14/77	13	45	0.0	0.25	0.005	121	329	18.41
5	6/17/77	15	17	0.0	0.29	0.099	195	213	9.58
5	6/17/77	17	52	0.06	2.16	0.073	227	592	11.34
5	6/28/77	13	46	0.02	0.0	0.017	395	502	14.54
5	7/ 6/77	13	30	0.02	0.0	0.048	404	535	15.96
5	7/19/77	11	50	0.06	0.0	0.006	377	468	14.44
5	7/26/77	15	14	0.04	1.89	0.108	282	283	14.90
5	7/28/77	22	17	0.09	2.63	0.130	129	2296	8.52
5	7/29/77	5	2	0.08	2.53	0.166	368	336	12.96
5	7/29/77	11	30	0.05	1.75	0.119	318	269	11.49
5	8/ 1/77	20	30	0.05	2.05	0.162	271	474	10.45
5	8/ 1/77	22	7	0.04	1.78	0.118	52	3868	7.79
5	8/ 2/77	8	20	0.03	1.99	0.152	249	519	9.58
5	8/ 2/77	18	12	0.02	0.23	0.052	305	441	9.60
5	8/ 5/77	14	20	0.09	0.83	0.054	125	3861	3.52
5	8/ 5/77	17	14	0.03	2.53	0.052	147	3425	3.84
5	8/ 5/77	17	53	0.05	3.03	0.049	169	2528	3.74
5	8/ 6/77	8	30	0.13	1.26	0.081	322	528	9.21
5	8/ 6/77	18	13	0.13	1.20	0.127	401	372	18.42
5	8/ 7/77	17	58	0.13	0.35	0.063	343	358	11.09
5	8/ 8/77	6	10	0.04	2.66	0.077	176	2713	4.68
5	8/ 8/77	8	18	0.04	2.30	0.065	147	2768	4.94
5	8/ 8/77	11	34	0.04	2.90	0.046	220	2741	4.11
5	8/ 8/77	15	12	0.10	3.44	0.072	287	497	13.23
5	8/ 9/77	10	30	0.14	1.17	0.179	379	996	12.01
5	8/ 9/77	18	20	0.12	5.07	0.151	360	376	20.90
5	8/15/77	22	52	0.15	6.93	0.305	393	685	13.68
5	8/15/77	23	38	0.15	1.73	0.162	336	1534	7.68
5	8/16/77	0	37	0.02	1.10	0.082	105	3553	3.06
5	8/16/77	1	43	0.02	1.71	0.219	160	2154	3.41
5	8/16/77	3	33	0.0	8.26	0.237	211	1879	4.98
5	8/16/77	8	28	0.04	8.26	0.351	245	553	15.10
5	8/16/77	11	34	0.04	3.76	0.226	168	778	7.56
5	8/16/77	17	20	5.43	0.02	2.540	370	1129	31.66
5	8/16/77	19	45	1.17	2.31	0.747	213	692	15.43
5	8/16/77	22	26	0.78	2.26	0.516	171	528	13.51
5	8/17/77	9	7	0.56	2.80	0.405	227	306	12.65
5	8/17/77	18	28	0.48	3.93	0.367	355	395	20.93
5	8/18/77	9	32	0.55	2.90	0.363	273	343	14.84
5	8/28/77	7	17	0.06	4.03	0.226	268	570	11.01
5	8/28/77	12	40	0.10	4.88	0.348	360	487	15.77
5	8/28/77	22	18	0.15	3.76	0.494	295	615	16.14
5	8/29/77	9	28	4.67	2.09	1.452	612	853	50.91
5	8/29/77	18	25	2.42	5.32	1.011	920	1175	32.52
5	8/30/77	18	18	0.23	3.96	0.425	918	910	20.82
5	8/31/77	23	40	0.13	3.40	0.397	817	848	23.64
5	9/ 1/77	0	25	0.06	0.67	0.076	388	1546	6.73
5	9/ 1/77	1	8	0.02	0.75	0.037	105	2452	5.31
5	9/ 1/77	2	15	0.02	1.03	0.051	418	2454	3.12
5	9/ 1/77	5	6	0.0	3.28	0.087	668	1099	10.47
5	9/ 1/77	7	59	0.05	3.53	0.377	367	419	26.74
5	9/ 1/77	11	32	0.05	4.82	0.308	699	684	13.57
5	9/ 1/77	18	25	0.08	4.94	0.381	928	947	26.74
5	9/ 2/77	18	9	0.21	3.10	0.339	751	994	21.27
5	9/13/77	14	42	0.05	2.20	0.273	690	673	26.35
5	9/17/77	23	28	0.10	5.94	0.367	211	1477	5.75
5	9/18/77	1	7	0.16	5.95	0.397	627	946	8.58
5	9/18/77	2	22	0.13	7.14	0.427	633	784	8.51
5	9/18/77	4	28	0.06	9.75	0.425	718	814	10.35
5	9/18/77	8	13	0.05	7.73	0.267	728	1053	10.37
5	9/18/77	12	42	0.20	9.25	0.432	909	838	17.38
5	9/18/77	18	45	0.61	11.03	0.553	944	1022	26.35
5	9/18/77	22	45	1.75	11.47	1.133	1088	1335	26.15
5	9/19/77	9	35	0.19	13.30	0.576	920	855	17.67
5	9/19/77	18	24	0.09	16.60	0.425	344	436	23.16
5	9/20/77	19	5	0.17	11.41	0.193	404	535	29.94
5	10/ 4/77	13	35	0.02	10.02	0.146	483	464	29.03
5	10/11/77	14	40	0.14	12.13	0.118	479	496	18.53
5	10/18/77	14	10	0.0	10.74	0.086	532	536	21.02
5	10/25/77	13	9	0.05	23.21	0.248	396	498	29.30
5	11/ 1/77	14	0	0.0	18.55	0.224	403	415	26.84
5	11/ 8/77	13	7	0.07	16.35	0.106	416	413	25.50
5	11/14/77	14	4	0.01	15.02	0.060	430	444	24.97
5	11/21/77	12	50	0.01	13.08	0.086	376	414	26.17
5	11/30/77	13	20	0.36	12.38	0.086	321	354	25.12

TABLE F2-14. FOUR MILE CREEK WATERSHED RUNOFF NUTRIENT CONCENTRATION DATA FOR 1977 SITE 6

SITE	DATE	HOUR	MIN	NH4-N	NO3-N	PO4-P	TDS	TDS+SEDT	CL-
				PPM					
6	2/24/77	14	0	0.29	2.00	0.578	199	231	12.54
6	3/ 8/77	16	0	0.37	0.69	0.290	267	370	7.92
6	3/15/77	14	0	0.62	2.35	0.123	346	326	15.14
6	3/22/77	13	45	0.23	2.81	0.048	328	363	16.67
6	3/29/77	14	0	0.05	6.59	0.078	378	386	19.62
6	4/ 6/77	12	0	0.04	6.42	0.020	426	470	21.21
6	4/13/77	16	0	0.02	0.0	0.023	310	327	16.46
6	4/18/77	13	50	0.02	0.0	0.036	440	427	15.32
6	4/19/77	19	30	0.13	2.09	0.067	314	333	34.43
6	4/26/77	16	30	0.05	0.0	0.032	369	380	17.85
6	5/ 2/77	13	25	0.03	0.0	0.033	388	407	18.32
6	7/29/77	11	30	0.09	7.59	0.226	367	497	10.32
6	8/ 1/77	20	25	0.01	0.87	0.019	46	6117	1.10
6	8/ 1/77	22	11	0.04	1.29	0.051	64	4806	3.08
6	8/ 2/77	8	14	0.06	3.92	0.207	206	333	9.43
6	8/ 5/77	14	23	0.05	0.27	0.089	101	2623	2.94
6	8/ 5/77	17	20	0.05	1.70	0.084	138	1655	3.41
6	8/ 5/77	17	58	0.11	1.35	0.321	200	403	5.13
6	8/ 8/77	6	9	0.14	1.20	0.105	139	3114	2.58
6	8/ 8/77	8	14	0.17	0.83	0.106	125	2413	1.84
6	8/ 8/77	11	28	0.22	4.87	0.314	307	422	9.07
6	8/ 8/77	15	7	0.09	4.38	0.274	229	336	6.43
6	8/ 9/77	10	36	0.15	1.03	0.098	159	1092	1.37
6	8/ 9/77	18	25	0.08	2.14	0.174	354	276	11.76
6	8/15/77	22	57	0.17	0.69	0.051	118	9006	1.81
6	8/15/77	23	27	0.16	0.65	0.095	123	5249	1.14
6	8/15/77	23	48	0.19	1.01	0.126	127	3507	1.30
6	8/16/77	0	30	0.13	1.95	0.251	135	1622	2.03
6	8/16/77	1	15	0.08	2.65	0.465	150	869	4.82
6	8/16/77	1	55	0.07	3.23	0.395	172	619	5.13
6	8/16/77	2	15	0.06	4.67	0.395	208	560	5.80
6	8/16/77	3	40	0.10	8.63	0.453	260	536	11.50
6	8/16/77	8	23	0.13	15.33	0.360	391	514	16.83
6	8/16/77	17	14	0.01	14.09	0.191	472	463	16.53
6	8/28/77	7	13	0.27	5.19	0.488	233	299	9.29
6	8/28/77	12	36	0.03	8.28	0.372	357	429	11.91
6	8/28/77	22	12	0.07	9.83	0.213	396	485	14.90
6	8/31/77	23	35	0.42	1.23	0.096	256	5133	1.71
6	8/31/77	23	57	0.30	1.63	0.177	87	2459	2.12
6	9/ 1/77	0	17	0.15	2.24	0.188	293	2256	2.26
6	9/ 1/77	0	35	0.13	2.90	0.239	86	1320	2.49
6	9/ 1/77	1	0	0.09	4.07	0.470	116	1168	4.15
6	9/ 1/77	1	35	0.07	5.33	0.654	142	535	5.97
6	9/ 1/77	2	10	0.08	7.41	0.649	168	670	7.34
6	9/ 1/77	4	59	0.07	15.31	0.607	366	477	17.01
6	9/ 1/77	11	27	0.0	18.17	0.126	376	383	16.21
6	9/13/77	14	57	0.0	8.99	0.048	572	683	21.67
6	9/17/77	23	20	0.34	5.21	0.712	140	915	6.19
6	9/18/77	0	59	0.16	11.32	0.613	625	987	10.45
6	9/18/77	2	17	0.13	18.29	0.504	950	1031	13.77
6	9/18/77	4	22	0.07	22.64	0.251	394	447	15.10
6	9/18/77	8	6	0.12	7.70	0.646	876	931	11.48
6	9/18/77	12	35	0.14	20.04	0.251	399	435	15.66
6	9/18/77	18	32	0.10	21.53	0.084	430	458	14.32
6	9/20/77	19	0	0.20	15.08	0.084	363	393	27.25
6	10/ 4/77	13	30	0.04	14.93	0.026	432	460	13.27
6	10/11/77	14	30	0.18	13.16	0.051	452	422	13.36
6	10/18/77	14	5	0.0	15.27	0.055	512	509	14.63
6	10/25/77	13	5	0.05	21.39	0.085	390	433	15.12
6	11/ 1/77	13	52	0.04	19.32	0.050	369	363	14.85
6	11/ 8/77	13	5	0.05	17.94	0.042	362	361	13.78
6	11/14/77	14	1	0.07	16.45	0.030	391	383	15.53
6	11/21/77	12	45	0.01	14.95	0.022	350	379	12.88
6	11/30/77	13	15	0.01	13.81	0.023	263	281	13.43

TABLE F2-15. FOUR MILE CREEK WATERSHED RUNOFF NUTRIENT CONCENTRATION DATA FOR 1977 SITE 7

SITE	DATE	HOUR	MIN	NH4-N	NO3-N	PO4-P	TDS	TDS+SEDT	CL-
				----------	----------	PPM	----------	----------	----------
7	8/15/77	22	30	0.05	0.0	0.184	173	4393	4.83
7	8/16/77	0	0	0.04	0.0	0.066	145	1037	2.72
7	8/16/77	0	53	0.06	0.0	0.360	120	1305	3.84
7	9/18/77	8	22	0.0	0.48	0.190	74	175	3.38
7	9/18/77	8	40	0.0	0.74	0.190	86	169	3.66
7	9/18/77	8	52	0.0	1.08	0.195		171	3.73

TABLE F2-16. FOUR MILE CREEK WATERSHED RUNOFF NUTRIENT CONCENTRATION DATA FOR 1977 SITE 8

SITE	DATE	HOUR	MIN	NH4-N	NO3-N	PO4-P	TDS	TDS+SEDT	CL-
				PPM					
8	4/19/77	17	31	2.38	3.02	0.125	115	86560	7.45
8	4/19/77	17	34	2.21	2.30	0.119	114	75450	8.56
8	4/19/77	17	41	2.15	2.19	0.166	94	48980	6.46
8	4/19/77	18	0	3.07	1.88	0.709	94	29750	9.04
8	4/19/77	18	23	3.07	2.00	0.880	110	19710	9.16
8	8/ 9/77	8	15	0.05	0.14	0.598	71	495	1.51
8	8/ 9/77	8	25	0.06	0.53	0.628	73	700	1.48
8	8/ 9/77	8	35	0.02	0.57	0.577	86	711	1.48
8	8/ 9/77	8	45	0.01	0.42	0.544	94	605	1.48
8	8/ 9/77	8	55	0.12	2.42	0.465	71	736	1.81
8	8/ 9/77	9	5	0.0	3.31	0.328	58	636	1.46
8	8/ 9/77	9	15	0.0	3.55	0.309	61	577	1.18
8	8/ 9/77	9	25	0.02	3.79	0.298	71	503	1.18
8	8/ 9/77	9	40	0.03	3.99	0.314	66	432	1.23
8	8/ 9/77	9	50	0.02	5.53	0.351	67	444	1.14
8	8/ 9/77	10	0	0.01	0.41	0.419	97	516	1.23
8	8/ 9/77	11	0	0.0	7.04	0.349	81	313	1.19
8	8/ 9/77	12	0	0.0	0.02	0.312	64	322	1.19
8	8/ 9/77	12	30	0.02	0.0	0.365	91	310	1.89
8	8/ 9/77	13	0	0.02	0.0	0.367	70	258	1.61
8	8/ 9/77	13	30	0.04	0.81	0.349	79	256	2.64
8	8/15/77	23	5	0.0	0.40	0.063	52	7388	1.44
8	8/15/77	23	20	0.0	0.45	0.070	50	5613	1.11
8	8/15/77	23	40	0.0	1.30	0.110	65	2807	1.36
8	8/15/77	23	50	0.01	1.99	0.284	91	2282	1.81
8	8/16/77	0	0	0.08	2.27	0.340	102	1879	3.25
8	8/16/77	0	10	0.0	3.25	0.316	109	1576	2.46
8	8/16/77	0	20	0.0	3.51	0.307	113	1272	2.62
8	8/16/77	0	35	0.10	3.73	0.200	112	1142	3.20
8	8/16/77	0	50	0.0	3.93	0.267	124	953	3.15
8	8/16/77	1	10	0.05	5.67	0.228	158	728	3.17
8	8/16/77	1	35	0.0	5.89	0.195	58	519	1.74
8	8/16/77	2	5	0.0	7.31	0.200	225	451	3.97
8	9/18/77	0	51	0.0	0.27	0.323	74	180	2.56
8	9/18/77	6	56	0.0	0.26	0.139	64	418	2.05
8	9/18/77	7	8	0.0	0.23	0.130	72	342	2.02
8	9/18/77	7	34	0.0	0.21	0.130	76	271	1.84
8	9/18/77	7	50	0.01	0.21	0.142	74	254	2.00
8	9/18/77	8	5	0.0	0.21	0.149	73	222	1.86

TABLE F2-17. FOUR MILE CREEK WATERSHED RUNOFF NUTRIENT CONCENTRATION DATA FOR 1978 SITE 1

SITE	DATE	HOUR	MIN	NH4-N	NO3-N	PO4-P	TDS	TDS+SEDT	CL-
				PPM					
1	3/19/78	12	15	0.46	2.61	0.479	137	174	14.22
1	3/19/78	16	47	0.34	1.92	2.026	128	156	11.28
1	3/19/78	17	40	0.27	1.35	1.663	96	150	11.73
1	3/20/78	10	37	0.28	2.41	0.219	124	161	12.82
1	3/20/78	11	50	0.29	2.21	0.212	111	173	12.39
1	3/20/78	12	33	0.28	2.23	0.184	113	216	11.62
1	3/20/78	13	47	0.23	1.69	0.177	69	156	8.20
1	3/20/78	14	45	0.21	1.50	0.149	54	144	10.87
1	3/20/78	15	50	0.20	1.47	0.157	48	138	7.31
1	3/20/78	16	49	0.21	1.64	0.154	54	131	7.75
1	3/20/78	17	45	0.32	1.81	0.156	46	124	12.61
1	3/20/78	20	12	0.25	2.06	0.148	65	136	11.08
1	3/20/78	21	13	0.27	2.01	0.152	72	130	12.01
1	3/20/78	22	24	0.61	2.11	0.154	65	117	16.94
1	3/21/78	8	23	0.26	2.31	0.158	109	144	10.59
1	3/21/78	9	20	0.30	2.39	0.164	101	148	12.85
1	3/21/78	10	5	0.27	2.30	0.180	107	144	10.85
1	3/21/78	11	2	0.29	1.91	0.182	91	166	8.89
1	3/21/78	12	7	0.25	1.51	0.182	83	169	6.15
1	3/21/78	13	28	0.22	1.35	0.180	75	179	5.28
1	3/21/78	14	50	0.23	1.52	0.145	67	170	5.22
1	3/21/78	15	47	0.22	1.36	0.145	70	145	4.88
1	3/21/78	16	47	0.27	1.30	0.152	60	128	5.85
1	3/21/78	17	30	0.19	1.27		117	156	7.44
1	3/21/78	18	30	0.17	1.28		97	123	9.42
1	3/21/78	19	30	0.15	1.37		101	115	5.71
1	3/21/78	20	30	0.25	1.46		142	154	7.04
1	3/21/78	21	30	0.13	1.49		114	122	6.07
1	3/21/78	22	0	0.17	1.58		111	123	6.28
1	3/22/78	1	0	0.15	1.76		127	141	6.63
1	3/22/78	3	0	0.20	1.84		136	153	7.29
1	3/22/78	10	30	0.26	1.82		155	218	6.39
1	3/22/78	11	30	0.27	1.80		161	225	6.39
1	3/22/78	12	0	0.11	1.47		135	218	4.85
1	3/22/78	13	0	0.05	1.18		113	309	4.04
1	3/22/78	14	0	0.13	0.98		119	159	3.51
1	3/22/78	15	0	0.14	0.93		106	168	3.31
1	3/22/78	16	45	0.14	1.17		13	66	3.47
1	3/22/78	16	47	0.12	0.93	0.162	94	153	2.88
1	3/22/78	17	45	0.14	1.19		10	56	3.53
1	3/22/78	18	45	0.14	1.18		14	46	3.47
1	3/22/78	19	45	0.14	1.21		12	106	3.54
1	3/22/78	20	45	0.14	1.19		49	75	3.42
1	3/23/78	14	5	0.23	1.74	0.064	69	138	4.34
1	3/23/78	16	0	0.16	1.65	0.147	86	170	4.28
1	3/23/78	18	0	0.12	1.56	0.088	82	152	3.16
1	4/17/78	14	14	0.24	0.99	0.067	32	4650	1.18
1	4/17/78	14	24	0.14	0.86	0.051	34	5175	0.83
1	4/17/78	14	35	0.10	0.86	0.039	61	7423	1.52
1	4/17/78	14	40	0.11	0.82	0.034	31	6966	0.75
1	4/17/78	14	45	0.08	0.72	0.039	34	5826	0.68
1	4/17/78	14	50	0.11	0.67	0.043	34	5681	0.99

SITE	DATE	HOUR	MIN	NH4-N	NO3-N	PO4-P	TDS	TDS+SEDT	CL-
				PPM					
1	4/17/78	14	55	0.08	0.65	0.044	41	6816	0.75
1	4/17/78	15	0	0.08	0.78	0.047	52	5728	0.84
1	4/17/78	15	5	0.07	0.98	0.046	19	4702	0.92
1	4/17/78	15	10	0.08	1.06	0.042	44	4126	0.85
1	4/17/78	15	15	0.09	1.02	0.044	33	5026	0.82
1	4/17/78	15	20	0.06	0.99	0.034	18	6490	0.63
1	4/17/78	15	25	0.10	1.11	0.039	31	5575	0.84
1	4/17/78	15	30	0.10	1.27	0.038	24	5504	0.76
1	4/17/78	15	35	0.11	1.45	0.043	4	4620	0.88
1	4/17/78	15	40	0.13	1.58	0.053	8	3460	1.02
1	4/17/78	15	45	0.11	1.38	0.089	8	3804	0.84
1	4/17/78	15	50	0.10	1.39	0.066	26	3628	0.86
1	4/17/78	15	55	0.11	1.43	0.048	13	3020	0.92
1	4/17/78	16	0	0.11	1.44	0.046	22	2800	0.93
1	4/17/78	16	10	0.13	1.75	0.064	60	2073	0.94
1	4/17/78	16	25	0.15	1.86	0.064	67	1908	1.51
1	4/17/78	23	5	0.10	0.90	0.040	21	12460	0.62
1	4/17/78	23	13	0.10	0.98	0.042	24	14500	0.76
1	4/17/78	23	18	0.08	0.96	0.055	17	14370	0.55
1	4/17/78	23	24	0.07	0.87	0.056	36	11940	0.62
1	4/17/78	23	30	0.05	0.89	0.073	9	10160	0.79
1	4/17/78	23	37	0.06	0.80	0.090	28	9268	1.30
1	4/17/78	23	44	0.06	0.76	0.063	18	8142	0.65
1	4/17/78	23	51	0.06	0.73	0.168	21	6578	1.06
1	4/18/78	0	1	0.10	0.73	0.479	22	5867	2.13
1	4/18/78	0	10	0.14	0.78	0.769	36	4843	3.08
1	4/18/78	0	20	0.11	0.80	0.855	25	4146	3.38
1	4/18/78	0	30	0.13	0.73	0.811	22	3629	3.48
1	4/18/78	0	45	0.16	0.92	1.043	47	2596	3.75
1	4/18/78	1	0	0.21	1.16	1.928	65	1211	6.55
1	4/18/78	1	20	0.26	1.34	1.835	65	745	8.39
1	4/18/78	1	39	0.27	1.42	1.846	61	662	8.96
1	5/13/78	2	3	0.12	1.99	0.195	9	2783	2.11
1	5/13/78	2	21	0.10	3.27	0.133	19	4046	2.11
1	5/13/78	2	44	0.07	4.39	0.094	18	4367	1.71
1	5/13/78	3	17	0.07	4.72	0.066	9	4355	1.52
1	5/13/78	3	48	0.05	4.91	0.071	13	3481	1.73
1	5/13/78	4	42	0.05	5.45	0.077	13	3982	9.37
1	5/27/78	16	39	0.34	9.82	0.035	67	45540	6.22
1	5/27/78	16	41	0.30	11.06	0.037	102	42150	3.63
1	5/27/78	16	44	0.28	9.13	0.040	39	32690	2.87
1	5/27/78	16	47	0.43	5.65	0.045	0	27180	2.00
1	5/27/78	16	49	0.20	6.16	0.052	14	40210	2.73
1	5/27/78	16	51	0.20	7.38	0.054	36	36340	2.57
1	5/27/78	16	53	0.16	7.38	0.057	13	32910	15.46
1	5/27/78	16	55	0.19	7.41	0.052	41	28830	2.34
1	5/27/78	17	10	0.16	3.13	0.173	41	11170	9.56
1	5/27/78	17	29	0.21	2.51	0.476	81	4485	13.93
1	5/27/78	17	33	0.19	2.48	0.500	64	3844	12.41
1	5/27/78	17	41	0.16	2.13	0.507	160	3135	12.91
1	5/27/78	17	52	0.14	2.43	0.517	132	2239	12.77
1	5/31/78	22	24	0.09	3.56	0.067	79	31430	1.15

TABLE F2-17. CONCLUDED

SITE	DATE	HOUR	MIN	NH4-N	NO3-N	PO4-P	TDS	TDS+SEDT	CL-
				PPM					
1	5/31/78	22	27	0.08	2.58	0.065	25	21760	1.01
1	5/31/78	22	30	0.09	2.51	0.066	73	17280	1.99
1	5/31/78	22	33	0.05	2.35	0.072	20	10920	0.89
1	5/31/78	22	41	0.04	2.05	0.076	42	8858	1.12
1	5/31/78	22	46	0.06	1.69	0.098	48	6111	2.88
1	5/31/78	22	51	0.32	1.37	0.208	53	6201	12.03
1	5/31/78	22	56	0.13	1.44	0.231	56	5702	6.13
1	5/31/78	23	3	0.15	1.41	0.242	75	5239	6.01
1	6/15/78	1	21	0.19	1.26	0.066	48	16790	2.25
1	6/15/78	1	26	0.17	0.92	0.054	41	12570	1.55
1	6/15/78	1	31	0.16	0.81	0.076	37	9027	1.57
1	6/15/78	1	37	0.15	0.75	0.069	16	6419	1.36
1	6/15/78	1	44	0.10	0.87	0.090	16	7606	1.05
1	6/15/78	1	47	0.10	0.82	0.065	33	14100	1.05
1	6/15/78	1	53	0.10	0.76	0.090	26	16240	0.79
1	6/15/78	1	56	0.09	0.80	0.082	23	15910	0.76
1	6/15/78	2	2	0.08	0.92	0.067	17	11360	0.68
1	6/15/78	2	6	0.12	0.80	0.102	19	9974	1.78
1	6/15/78	2	11	0.14	0.81	0.108	18	8559	1.92
1	6/15/78	2	17	0.17	1.16	0.201	27	6347	2.73
1	6/15/78	2	26	0.21	1.32	0.273	13	4711	3.12
1	6/15/78	2	35	0.22	1.41	0.356	26	3456	3.54
1	6/15/78	2	45	0.11	2.13	0.192	16	3487	2.20
1	6/15/78	2	55	0.14	1.77	0.238	21	2754	2.76
1	6/15/78	3	5	0.20	1.62	0.326	21	1679	3.58
1	6/15/78	3	15	0.21	1.71	0.354	47	1094	3.67
1	6/20/78	0	58	0.08	1.30	0.060	34	17400	1.63
1	6/20/78	1	1	0.06	1.13	0.061	34	15640	1.10
1	6/20/78	1	5	0.05	1.03	0.066	42	12580	1.08
1	6/20/78	1	9	0.08	1.07	0.068	31	15910	1.58
1	6/20/78	1	13	0.08	0.91	0.065	28	13260	1.84
1	6/20/78	1	15	0.08	1.02	0.064	40	11090	2.07
1	6/20/78	1	17	0.07	1.12	0.074	21	10190	1.89
1	6/20/78	1	19	0.07	1.54	0.080	27	9086	1.98
1	6/20/78	1	22	0.06	0.88	0.069	36	8989	1.20
1	6/20/78	1	28	0.05	0.81	0.077	27	8646	1.04
1	6/20/78	1	32	0.05	0.98	0.079	28	6796	1.18
1	6/20/78	1	42	0.06	0.79	0.123	31	4838	1.46
1	6/20/78	1	51	0.06	0.77	0.144	29	4127	1.76
1	6/20/78	2	1	0.06	0.95	0.147	17	3341	1.62
1	6/20/78	2	12	0.04	0.77	0.086	39	6670	1.12
1	6/20/78	2	22	0.05	0.64	0.103	24	6219	1.23
1	6/20/78	2	32	0.05	0.81	0.116	47	4583	1.20
1	6/20/78	2	42	0.05	0.91	0.109	20	4349	1.34
1	6/20/78	2	57	0.04	0.93	0.135	8	3250	1.26
1	6/26/78	21	18	0.0	1.44	0.170	0	789	1.23

TABLE F2-18. FOUR MILE CREEK WATERSHED RUNOFF NUTRIENT CONCENTRATION DATA FOR 1978 SITE 2

SITE	DATE	HOUR	MIN	NH4-N	NO3-N	PO4-P	TDS	TDS+SEDT	CL-
				PPM					
2	3/20/78	14	20	0.58	1.12	0.073	13	132	0.76
2	3/20/78	15	16	0.54	1.06	0.079	8	243	0.76
2	3/20/78	16	12	0.51	1.17	0.127	4	271	9.76
2	3/20/78	17	16	0.47	1.18	0.128	67	223	1.37
2	3/20/78	18	10	0.47	1.27	0.138	67	175	1.97
2	3/20/78	20	10	0.51	1.54	0.145	67	152	9.25
2	3/20/78	21	12	0.55	1.52	0.146	64	126	20.95
2	3/20/78	22	22	0.55	1.53	0.132	48	102	12.48
2	3/21/78	8	20	0.48	1.61	0.135	54	102	1.56
2	3/21/78	9	16	0.48	1.52	0.108	68	112	1.22
2	3/21/78	10	0	0.46	1.45	0.131	67	150	2.20
2	3/21/78	11	0	0.47	1.22	0.138	60	131	1.61
2	3/21/78	12	5	0.40	1.07	0.141	52	238	0.96
2	3/21/78	13	25	0.36	1.16	0.155	37	310	0.90
2	3/21/78	14	48	0.35	1.17	0.122	47	1028	0.84
2	3/21/78	15	54	0.41	1.07	0.088	52	619	0.74
2	3/21/78	17	1	0.39	0.99	0.090	37	377	0.60
2	3/21/78	17	15	0.22	1.00		83	426	0.66
2	3/21/78	18	15	0.28	1.04		74	264	0.61
2	3/21/78	19	15	0.31	1.09		80	217	0.62
2	3/21/78	20	15	0.35	1.20		76	191	1.03
2	3/21/78	21	15	0.84	1.22	0.096	51	164	10.94
2	3/21/78	22	15	0.54	1.25	0.101	62	177	0.93
2	3/21/78	23	15	0.30	1.28		69	159	0.79
2	3/22/78	0	15	0.32	1.28		59	156	0.93
2	3/22/78	10	15	0.32	1.19		35	147	1.56
2	3/22/78	11	15	0.28	0.95		7	271	1.67
2	3/22/78	12	15	0.25	0.91		7	727	0.71
2	3/22/78	13	25	0.34	0.84	0.078	40	765	0.72
2	3/22/78	14	30	0.28	0.83		36	509	0.47
2	3/22/78	15	30	0.23	0.83		45	226	0.34
2	3/22/78	16	30	0.25	0.85		54	181	0.37
2	3/22/78	17	30	0.23	0.94		55	58	0.36
2	3/22/78	18	30	0.24	1.08		21	38	0.45
2	3/22/78	19	30	0.32	1.22		17	18	0.79
2	3/22/78	20	30	0.23	1.14		3	13	0.44
2	3/22/78	21	30	0.25	0.92		4	6	0.44
2	3/22/78	22	30	0.25	0.89		11	22	0.36
2	3/22/78	23	30	0.29	0.77		4	4	0.40
2	3/23/78	0	30	0.23	0.69	0.094	20	32	0.34
2	3/23/78	15	30	0.31	1.41	0.089	56	235	0.61
2	3/23/78	18	30	0.38	1.69	0.108	66	166	1.31
2	3/23/78	21	30	0.38	1.86	0.105	61	148	0.80
2	3/26/78	17	15	0.36	0.75	0.163	4	224	0.43
2	3/27/78	13	5	0.35	0.58	0.149	47	575	0.63
2	3/27/78	14	0	0.14	0.46		43	421	0.43
2	3/27/78	15	0	0.12	0.45		33	410	0.37
2	3/27/78	16	0	0.13	0.53		69	346	0.36
2	3/27/78	17	0	0.05	0.37		46	301	0.37
2	3/27/78	18	0	0.17	0.42		51	207	0.36
2	3/27/78	19	0	0.16	0.41		33	132	0.30
2	4/ 5/78	18	22	0.49	1.06	0.090	7	1177	0.36
2	4/ 5/78	18	27	0.45	0.99	0.105	20	1177	0.45
2	4/ 5/78	18	33	0.41	0.94	0.118	27	1075	0.45
2	4/ 5/78	18	45	0.33	0.97	0.165	24	854	0.69
2	4/ 5/78	18	53	0.32	1.06	0.228	23	755	0.73
2	4/ 5/78	19	0	0.33	1.14	0.198	33	620	0.80
2	4/ 5/78	19	5	0.32	1.16	0.201	56	600	0.75
2	4/ 5/78	19	12	0.35	1.32	0.196	52	440	0.77
2	4/ 9/78	18	32	0.33	1.03	0.026	395	7595	0.63
2	4/17/78	14	7	0.17	0.49	0.029	41	3192	0.52
2	4/17/78	14	20	0.21	0.54	0.042	51	2869	0.50
2	4/17/78	14	30	0.16	0.42	0.044	36	2454	0.49
2	4/17/78	14	35	0.16	0.35	0.055	33	2325	0.65
2	4/17/78	14	40	0.16	0.33	0.072	52	1876	0.63
2	4/17/78	14	45	0.13	0.31	0.073	19	2026	0.62
2	4/17/78	14	50	0.0	0.31	0.082	35	1869	2.92
2	4/17/78	14	55	0.13	0.31	0.093	18	1558	0.60
2	4/17/78	15	0	0.14	0.34	0.098	9	1413	0.59
2	4/17/78	15	5	0.13	0.35	0.109	24	1264	0.59
2	4/17/78	15	10	0.14	0.36	0.102	9	924	0.63
2	4/17/78	15	15	0.14	0.34	0.099	15	1307	0.60
2	4/17/78	15	20	0.13	0.34	0.082	24	1466	0.49
2	4/17/78	15	25	0.13	0.35	0.086	21	506	0.51
2	4/17/78	15	30	0.12	0.38	0.091	4	1209	0.61
2	4/17/78	15	35	0.13	0.43	0.115	4	1357	0.61
2	4/17/78	15	40	0.14	0.44	0.124	4	1119	0.58
2	4/17/78	15	45	0.14	0.47	0.172	4	1168	0.59
2	4/17/78	15	50	0.14	0.47	0.138	4	1102	0.59
2	4/17/78	15	55	0.17	0.47	0.141	4	1105	0.59
2	4/17/78	16	5	0.18	0.51	0.167	4	907	0.62
2	4/17/78	16	15	0.17	0.57	0.187	4	792	0.70
2	4/17/78	16	25	0.18	0.59	0.192	37	538	0.68
2	4/17/78	16	35	0.17	0.62	0.201	45	548	0.66
2	4/17/78	16	55	0.17	0.65	0.213	32	472	0.76
2	4/17/78	17	12	0.19	0.67	0.182	19	478	0.76
2	4/17/78	17	33	0.20	0.71	0.192	38	375	0.73
2	4/17/78	23	4	0.22	0.63	0.024	8	4560	0.41
2	4/17/78	23	12	0.26	0.68	0.049	41	3669	0.50
2	4/17/78	23	15	0.23	0.68	0.055	27	3502	0.56
2	4/17/78	23	17	0.23	0.67	0.059	466	3197	0.44
2	4/17/78	23	20	0.22	0.44	0.068	4	2851	0.57
2	4/17/78	23	22	0.22	0.49	0.059	24	2961	0.50
2	4/17/78	23	25	0.23	0.43	0.061	23	2825	0.47
2	4/17/78	23	27	0.22	0.37	0.062	4	2694	0.50
2	4/17/78	23	29	0.29	0.62	0.077	4	2669	0.49
2	4/17/78	23	32	0.22	0.53	0.073	4	2498	0.64
2	4/17/78	23	34	0.22	0.66	0.091	4	2508	0.55
2	4/17/78	23	36	0.21	0.51	0.072	17	2255	0.55
2	4/17/78	23	41	0.16	0.27	0.075	22	2105	0.90
2	4/17/78	23	46	0.19	0.27	0.071	21	1968	0.53
2	4/17/78	23	51	0.14	0.17	0.070	4	1749	0.51
2	4/17/78	23	56	0.16	0.61	0.071	4	1624	0.49
2	4/18/78	0	1	0.18	0.08	0.076	18	1545	0.53

TABLE F2-18. CONTINUED

SITE	DATE	HOUR	MIN	NH4-N	NO3-N	PO4-P	TDS	TDS+SEDT	CL-
				PPM					
2	4/18/78	0	6	0.13	0.46	0.078	4	1554	0.50
2	4/18/78	0	13	0.13	0.24	0.078	4	1570	0.47
2	4/18/78	0	18	0.12	0.05	0.076	4	1465	0.45
2	4/18/78	0	23	0.08	0.04	0.079	4	1494	0.45
2	4/18/78	0	28	0.12	0.28	0.087	0	1436	0.42
2	4/18/78	0	33	0.12	0.38	0.077	0	1424	0.42
2	4/18/78	0	43	0.10	0.04	0.090	4	1299	0.42
2	4/18/78	0	53	0.12	0.38	0.083	23	1237	0.43
2	4/18/78	1	3	0.11	0.39	0.092	36	1105	0.43
2	4/18/78	1	18	0.13	0.03	0.104	36	1040	2.50
2	4/18/78	1	33	0.13	0.09	0.103	9	897	0.53
2	4/18/78	1	48	0.13	0.35	0.125	25	860	0.46
2	5/13/78	1	47	1.19	10.51	0.315	81	1149	5.43
2	5/13/78	2	9	1.22	14.69	0.227	124	1037	17.24
2	5/13/78	2	37	1.20	13.95	0.237	155	763	10.86
2	5/13/78	3	55	1.11	13.70	0.165	147	1025	11.30
2	5/27/78	16	36	0.59	8.37	0.051	115	18200	1.66
2	5/27/78	16	38	1.18	14.00	0.095	136	26020	3.47
2	5/27/78	16	40	1.10	15.60	0.087	118	25050	2.81
2	5/27/78	16	42	1.05	13.47	0.110	117	21350	2.02
2	5/27/78	16	44	1.00	12.68	0.092	93	20780	1.67
2	5/27/78	16	46	0.93	10.81	0.104	75	18970	1.65
2	5/27/78	16	48	0.77	8.78	0.111	51	20570	1.43
2	5/27/78	16	50	0.73	8.22	0.121	64	19810	1.87
2	5/27/78	16	52	0.61	6.86	0.125	60	16900	1.27
2	5/27/78	16	54	0.66	6.24	0.158	31	14050	1.20
2	5/27/78	16	56	0.68	5.95	0.137	24	6816	8.89
2	5/27/78	16	58	0.68	5.95	0.161	31	11820	1.49
2	5/27/78	17	0	0.65	6.28	0.149	72	11380	1.29
2	5/27/78	17	2	0.68	6.00	0.172	60	9915	4.83
2	5/27/78	17	4	0.71	6.04	0.195	68	8551	1.94
2	5/27/78	17	6	0.73	5.72	0.210	64	7463	1.52
2	5/27/78	17	8	0.77	6.17	0.240	81	6655	1.77
2	5/27/78	17	24	0.90	6.78	0.352	48	3467	1.96
2	5/27/78	17	31	0.97	7.12	0.388	39	2737	2.05
2	5/27/78	17	36	1.04	7.88	0.422	71	2208	2.46
2	5/27/78	17	46	1.15	8.71	0.512	79	1653	2.82
2	5/27/78	17	56	1.23	9.42	0.542	91	1371	5.05
2	5/27/78	18	2	1.21	9.30	0.538	80	1255	3.79
2	5/27/78	18	8	1.18	10.02	0.542	77	1109	3.76
2	5/27/78	18	17	1.30	10.52	0.554	88	918	4.00
2	5/31/78	22	20	0.57	1.62	0.096	85	29120	1.33
2	5/31/78	22	24	0.28	2.19	0.090	76	22880	0.56
2	5/31/78	22	26	0.38	4.07	0.108	103	26290	1.01
2	5/31/78	22	28	0.39	4.52	0.209	107	21710	1.81
2	5/31/78	22	30	0.42	4.26	0.123	76	18200	1.70
2	5/31/78	22	32	0.50	4.17	0.124	91	15010	3.76
2	5/31/78	22	34	0.38	4.02	0.135	72	11730	1.13
2	5/31/78	22	35	0.49	3.71	0.042	100	10930	
2	5/31/78	22	40	0.42	4.13	0.133	70	7264	2.27
2	5/31/78	22	44	0.45	4.42	0.146	59	5960	2.40
2	5/31/78	22	49	0.48	4.85	0.196	62	4083	3.04

SITE	DATE	HOUR	MIN	NH4-N	NO3-N	PO4-P	TDS	TDS+SEDT	CL-
				PPM					
2	5/31/78	22	54	0.50	5.29	0.231	50	3553	2.35
2	5/31/78	23	7	0.55	6.06	0.286	57	2397	2.57
2	6/15/78	1	18	0.19	0.75	0.051	60	13310	0.90
2	6/15/78	1	21	0.26	0.63	0.071	50	8218	0.52
2	6/15/78	1	24	0.25	0.59	0.078	44	9813	0.41
2	6/15/78	1	26	0.25	0.59	0.073	472	10240	0.42
2	6/15/78	1	28	0.24	0.61	0.078	46	9667	0.54
2	6/15/78	1	31	0.27	0.86	0.084	53	10030	1.00
2	6/15/78	1	34	0.30	1.23	0.104	72	8132	1.65
2	6/15/78	1	38	0.31	1.59	0.121	60	5930	1.96
2	6/15/78	1	43	0.26	1.39	0.121	50	4234	1.70
2	6/15/78	1	47	0.21	1.01	0.110	26	4571	1.49
2	6/15/78	1	50	0.18	0.70	0.104	33	8168	0.92
2	6/15/78	1	51	0.18	0.70	0.083	105	7119	1.22
2	6/15/78	1	52	0.21	0.86	0.119	29	10900	1.17
2	6/15/78	1	53	0.22	0.94	0.094	128	10470	1.25
2	6/15/78	1	54	0.22	1.12	0.114	34	10950	1.36
2	6/15/78	1	56	0.22	1.04	0.126	40	11620	1.36
2	6/15/78	1	58	0.22	1.00	0.099	27	10350	1.39
2	6/15/78	1	59	0.21	0.91	0.111	113	8050	1.27
2	6/15/78	2	0	0.22	1.01	0.101	38	9154	1.38
2	6/15/78	2	2	0.21	1.04	0.103	38	8173	1.31
2	6/15/78	2	4	0.24	1.26	0.137	28	6554	1.76
2	6/15/78	2	6	0.27	1.45	0.165	45	5593	2.23
2	6/15/78	2	8	0.30	1.60	0.206	31	4719	2.33
2	6/15/78	2	10	0.30	1.65	0.215	13	4025	2.46
2	6/15/78	2	12	0.32	1.62	0.243	26	3456	2.72
2	6/15/78	2	14	0.30	1.61	0.319	31	2908	2.38
2	6/15/78	2	16	0.33	1.75	0.354	35	2731	2.46
2	6/15/78	2	21	0.32	1.77	0.363	31	2061	2.29
2	6/15/78	2	30	0.34	1.89	0.428	25	1981	2.42
2	6/15/78	2	39	0.34	1.97	0.416	53	1342	2.47
2	6/15/78	2	49	0.36	2.13	0.434	54	1413	2.77
2	6/15/78	3	0	0.40	2.77	0.409	129	1192	3.34
2	6/15/78	3	10	0.44	17.41	0.423	140	928	3.83
2	6/15/78	3	21	0.46	6.55	0.377	141	741	4.19
2	6/15/78	3	31	0.48	4.06	0.381	143	618	4.40
2	6/15/78	3	42	0.46	4.06	0.356	153	586	4.43
2	6/20/78	0	57	0.12	1.61	0.052	42	10060	1.18
2	6/20/78	1	0	0.10	1.52	0.070	9	9612	1.01
2	6/20/78	1	3	0.29	2.06	0.021		16320	
2	6/20/78	1	5	0.14	1.95	0.076	46	12180	3.64
2	6/20/78	1	7	0.13	1.85	0.094	28	10630	2.84
2	6/20/78	1	10	0.13	1.81	0.096	53	8765	2.04
2	6/20/78	1	12	0.14	1.67	0.094	37	7553	3.35
2	6/20/78	1	14	0.09	1.47	0.097	43	6349	1.39
2	6/20/78	1	20	0.08	1.36	0.111	34	3695	1.24
2	6/20/78	1	27	0.12	1.71	0.145	40	3468	2.83
2	6/20/78	1	33						
2	6/20/78	1	40	0.15	1.68	0.287	32	2097	3.40
2	6/20/78	1	49	0.16	1.73	0.244	32	1656	3.46
2	6/20/78	2	0	0.18	1.65	0.327	43	1103	3.06

TABLE F2-18. CONCLUDED

SITE	DATE	HOUR	MIN	NH4-N	NO3-N	PO4-P	TDS	TDS+SEDT	CL-
				PPM					
2	6/20/78	2	10	0.10	1.47	0.145	30	2566	1.76
2	6/20/78	2	20	0.10	1.15	0.136	30	3261	1.61
2	6/20/78	2	30	0.12	1.22	0.153	38	2030	1.67
2	6/20/78	2	40	0.13	1.30	0.173	4	1639	1.56
2	6/20/78	2	55	0.15	1.48	0.230	7	1476	13.02

TABLE F2-19. FOUR MILE CREEK WATERSHED RUNOFF NUTRIENT CONCENTRATION DATA FOR 1978 SITE 3

SITE	DATE	HOUR	MIN	NH4-N	NO3-N	PO4-P	TDS	TDS+SEDT	CL-
				----------	----------	PPM	----------	----------	----------
3	3/19/78	14	29	0.60	0.22	2.002	74	180	2.53
3	3/19/78	15	30	0.61	0.21	1.149	79	42	2.97
3	3/19/78	16	30	0.61	0.16	1.191	82	27	2.84
3	3/19/78	17	30	0.61	0.18	1.274		36	3.13
3	3/19/78	18	30	0.63	0.18	1.247	88	54	3.13
3	3/19/78	19	30	0.66	0.22	1.395	107	45	3.36
3	3/19/78	20	30	0.69	0.27	1.433	105	50	3.63
3	3/19/78	21	30	0.70	0.27	1.427	111	86	3.56
3	3/19/78	22	30	0.73	0.27	1.330	107	121	3.61
3	3/19/78	23	30	0.74	0.27	1.336	111	122	3.56
3	3/20/78	0	30	0.77	0.32	1.448	126	131	3.80
3	3/20/78	1	30	0.79	0.32	1.459	123	137	3.82
3	3/20/78	3	30	0.83	0.35	1.499	132	155	4.15
3	3/20/78	5	30	0.98	0.42	1.587		183	5.05
3	3/20/78	6	30	0.98	0.42	1.622	145	158	4.88
3	3/20/78	8	30	1.08	0.49	1.698	174	182	5.59
3	3/20/78	10	30	0.78	0.28	1.215	106	137	3.15
3	3/20/78	11	30	0.72	0.25	0.963	67	326	2.58
3	3/20/78	12	30	0.64	0.25	0.669	79	105	2.20
3	3/20/78	13	30	0.54	0.19	0.588	18	62	1.38
3	3/20/78	16	30	0.60	0.74	1.039	101	112	2.35
3	3/20/78	18	30	0.58	0.59	1.085	65	105	2.27
3	3/20/78	20	30	0.63	0.56	1.002	43	93	1.81
3	3/20/78	22	30	0.62	0.57	0.852	39	85	3.75
3	3/21/78	0	30	0.61	0.55	0.717	36	95	1.47
3	3/21/78	4	30	0.70	0.64	0.650	39	72	2.33
3	3/21/78	6	30	0.68	0.67	0.607	73	79	1.22
3	3/21/78	8	30	0.63	0.45	0.510	51	64	0.80
3	3/21/78	10	30	0.50	0.44	0.265	39	58	0.56
3	3/21/78	11	30	0.49	0.37	0.212	44	51	0.96
3	3/21/78	14	30	0.56	0.52	0.919	79	87	2.96
3	3/21/78	15	3	0.53	0.43	0.185	36	72	2.64
3	3/21/78	16	30	0.50	0.77	0.240	61	210	1.07
3	3/21/78	20	30	0.54	0.42	0.127	10	37	3.58
3	3/22/78	0	30	0.56	0.28	0.076	6	22	2.13
3	3/22/78	4	30	0.47	0.24	0.078	6	22	2.26
3	3/22/78	8	30	0.40	0.20	0.060	3	24	0.41
3	3/22/78	12	30	0.45	0.53	0.209	18	60	0.93
3	3/22/78	17	0	0.35	0.87	0.677	50	79	0.26
3	3/22/78	18	15	0.36	0.72	0.657	34	33	0.83
3	3/22/78	20	15	0.35	0.66	0.634	14	27	0.75
3	3/22/78	22	15	0.37	0.66	0.624	19	29	0.75
3	4/ 5/78	19	11	0.14	1.14	0.187	164	169	5.81
3	4/17/78	15	26	0.13	0.89	0.238	176	344	8.17
3	4/17/78	15	40	0.09	0.94	0.232	185	376	3.59
3	4/17/78	16	33	0.09	1.13	0.332	462	494	4.41
3	4/17/78	16	46	0.07	1.18	0.367	52	208	4.33
3	4/17/78	17	2	0.05	1.27	0.358	75	430	4.83
3	4/18/78	15	10	0.02	1.31	0.187	182	278	6.80

TABLE F2-20. FOUR MILE CREEK WATERSHED RUNOFF NUTRIENT CONCENTRATION DATA FOR 1978 SITE 4

SITE	DATE	HOUR	MIN	NH4-N	NO3-N	PO4-P	TDS	TDS+SEDT	CL-
				PPM					
4	1/ 2/78	18	0	0.15	10.61	0.027	217	395	13.46
4	1/ 4/78	17	56	0.17	12.00	0.042	219	405	18.24
4	1/ 6/78	17	54	0.09	11.14	0.052	307	436	17.74
4	1/ 8/78	17	50	0.09	11.69	0.035	299	43[illegible]	17.93
4	1/10/78	18	0	0.10	11.14	0.035	287	43[illegible]	21.67
4	1/12/78	17	50	0.08	10.02	0.042	299	441	16.59
4	1/14/78	18	13	0.14	10.00	0.045	197	396	16.86
4	1/16/78	18	0	0.14	9.63	0.052	177	413	18.70
4	1/18/78	17	57	0.21	9.40	0.121	186	395	19.84
4	1/20/78	17	59	0.16	8.46	0.056	204	377	16.59
4	1/22/78	17	50	0.20	8.54	0.039	279	379	23.98
4	1/24/78	18	22	0.21	7.97	0.025	279	369	16.80
4	1/29/78	13	54	0.22	8.79	0.011	269	402	17.28
4	1/31/78	17	55	0.13	9.24	0.019	273	428	19.95
4	2/ 2/78	17	51	0.21	8.74	0.014	268	416	18.93
4	2/ 4/78	17	50	0.25	6.96	0.018	286	361	19.03
4	2/ 6/78	17	53	0.22	7.04	0.031	186	352	17.09
4	2/ 8/78	18	4	0.24	6.94	0.033	217	379	17.09
4	2/10/78	18	10	0.25	7.06	0.037	228	383	16.45
4	2/12/78	17	40	0.22	6.41	0.034	213	329	16.71
4	2/14/78	17	41	0.24	6.58	0.037	260	358	17.58
4	2/16/78	18	48	0.41	6.74	0.101	220	336	17.90
4	2/18/78	17	57	0.32	6.50	0.063	226	309	16.42
4	2/20/78	17	50	0.35	6.45	0.083	210	338	19.24
4	2/22/78	17	45	0.32	6.64	0.107	226	389	19.71
4	2/24/78	17	47	0.37	6.23	0.113	231	382	17.38
4	2/26/78	17	36	0.31	6.38	0.158	235	380	18.70
4	2/28/78	18	22	0.17	6.00	0.028	317	416	17.74
4	3/ 2/78	17	42	0.17	6.15	0.029	316	409	19.03
4	3/ 4/78	17	51	0.16	6.33	0.024	317	406	19.27
4	3/ 6/78	18	24	0.18	6.52	0.025	312	397	18.36
4	3/ 8/78	17	35	0.18	6.33	0.027	302	391	19.61
4	3/10/78	17	44	0.32	5.78	0.175	304	361	16.77
4	3/12/78	17	42	2.18	5.68	0.236	311	364	15.70
4	3/13/78	17	18	2.46	5.83	0.223	311	358	15.77
4	3/14/78	17	17	1.73	4.83	0.214	303	354	15.77
4	3/15/78	17	26	2.17	4.87	0.246	290	333	14.31
4	3/16/78	17	30	2.69	4.77	0.259	267	315	13.18
4	3/17/78	14	25	3.25	5.69	0.239	280	799	15.86
4	3/17/78	17	9	4.13	6.35	0.563	328	459	16.30
4	3/18/78	8	2	2.98	6.51	0.467	352	604	16.83
4	3/18/78	13	50	2.44	6.28	0.462	352	411	16.83
4	3/18/78	18	51	2.50	5.20	0.481	304	449	15.39
4	3/19/78	2	4	2.32	4.79	0.493	277	339	12.60
4	3/19/78	7	31	2.56	4.19	0.427	241	487	12.44
4	3/19/78	13	55	2.23	3.80	0.472	231	828	11.14
4	3/19/78	20	6	1.80	3.07	0.317	189	1315	9.00
4	3/20/78	2	28	1.89	3.10	0.741	119	473	9.59
4	3/20/78	8	31	1.78	4.24	0.677	140	492	9.74
4	3/20/78	13	50	1.44	4.66	0.442	172	1120	9.98
4	3/20/78	19	20	1.34	4.04	0.383	152	922	8.90
4	3/21/78	2	34	1.16	3.86	0.486	98	636	8.43
4	3/21/78	8	36	1.14	4.70	0.439	162	611	9.37
4	3/21/78	14	6	1.07	4.89	0.312	163	1164	8.43
4	3/21/78	19	37	1.77	3.64	0.404	135	2974	7.90
4	3/22/78	2	20	0.94	5.48	0.293	138	1014	8.68
4	3/22/78	8	37	0.90	8.16	0.261	221	535	11.29
4	3/22/78	13	30	0.63	8.72	0.219	319	637	11.21
4	3/22/78	20	1	1.82	6.20	0.433	177	1189	10.04
4	3/23/78	2	12	0.83	7.31	0.272	211	567	10.31
4	3/23/78	8	30	0.27	9.38	0.245	278	442	13.18
4	3/23/78	20	17	0.29	8.97	0.248	290	470	13.21
4	3/24/78	8	20	0.19	9.86	0.182	285	415	14.29
4	3/24/78	19	28	0.16	10.00	0.137	298	382	14.25
4	3/25/78	17	39	0.15	10.34	0.109	245	380	15.06
4	3/26/78	18	10	0.16	8.84	0.076	255	379	14.25
4	3/27/78	18	7	0.16	8.51	0.078	232	258	13.18
4	3/28/78	17	41	0.18	8.19	0.081	265	278	13.56
4	3/29/78	17	45	0.12	8.75	0.063	288	350	14.50
4	3/30/78	18	17	0.09	8.84	0.066	280	363	14.18
4	3/31/78	18	22	0.05	8.73	0.077	297	352	14.08
4	4/ 1/78	19	35	0.02	9.11	0.059	295	344	14.86
4	4/ 2/78	18	9	0.0	9.47	0.043	296	361	15.63
4	4/ 3/78	18	35	0.0	9.56	0.035	196	423	17.24
4	4/ 4/78	19	6	0.0	9.08	0.037	179	282	16.79
4	4/ 5/78	18	28	0.07	7.88	0.047	171	556	13.70
4	4/ 5/78	19	54	0.44	7.15	0.335	223	1049	14.10
4	4/ 5/78	21	43	0.48	5.28	0.146	60	3594	9.50
4	4/ 6/78	9	22	0.70	9.50	0.215	249	962	17.87
4	4/ 6/78	17	42	0.40	10.88	0.116	243	550	19.38
4	4/ 7/78	17	58	0.0	10.76	0.044	240	432	16.47
4	4/ 8/78	17	45	0.01	10.44	0.033	273	428	16.47
4	4/ 9/78	17	26	0.0	10.17	0.029	305	402	17.06
4	4/ 9/78	19	14	0.05	10.06	0.063	299	756	18.32
4	4/ 9/78	20	16	0.05	8.56	0.092	285	665	17.95
4	4/ 9/78	21	16	0.21	7.65	0.078	228	3100	14.08
4	4/ 9/78	22	15	0.33	5.11	0.149	158	4874	9.48
4	4/ 9/78	23	20	0.89	4.57	0.134	113	11180	11.42
4	4/10/78	2	36	0.44	8.26	0.266	242	2337	13.68
4	4/10/78	4	32	0.43	9.59	0.282	262	1666	13.65
4	4/10/78	8	31	0.28	11.56	0.210	308	841	16.39
4	4/10/78	12	40	0.18	12.92	0.150	328	531	20.02
4	4/10/78	18	22	0.13	12.34	0.061	375	617	15.21
4	4/11/78	18	9	0.03	11.91	0.042	348	472	14.29
4	4/12/78	18	30	0.02	10.47	0.032	330	615	12.81
4	4/13/78	18	51	0.02	5.77	0.024	359	489	6.71
4	4/14/78	20	42	0.0	12.26	0.025	347	536	14.91
4	4/16/78	18	12	0.0	11.71	0.020	327	584	15.14
4	4/17/78	15	28	0.15	10.00	0.038	381	936	13.44
4	4/17/78	18	4	0.34	5.71	0.157	436	2772	8.27
4	4/17/78	19	8	0.39	5.57	0.151	229	3164	10.03

TABLE F2-20. CONTINUED

SITE	DATE	HOUR	MIN	NH4-N	NO3-N	PO4-P	TDS	TDS+SEDT	CL-
				PPM					
4	4/17/78	20	9	0.39	4.82	0.101	173	4651	7.60
4	4/18/78	0	17	0.64	5.98	0.279	208	3042	10.24
4	4/18/78	2	35	0.50	5.65	0.131	179	6585	8.02
4	4/18/78	4	47	0.55	3.64	0.108	124	8343	5.53
4	4/18/78	8	27	0.52	7.40	0.229	169	3897	12.80
4	4/18/78	11	50	0.50	9.63	0.206	223	2196	12.39
4	4/18/78	12	7	0.37	15.07	0.293	321	1089	16.58
4	4/18/78	15	28	0.33	15.07	0.178	301	1142	15.11
4	4/18/78	18	26	0.33	25.33	0.177	314	1181	15.04
4	4/18/78	21	3	0.24	14.67	0.151	301	1090	15.66
4	4/19/78	0	25	0.35	14.16	0.179	312	929	15.58
4	4/19/78	5	11	0.27	12.27	0.145	329	860	13.28
4	4/19/78	11	34	0.19	15.10	0.115	309	683	16.96
4	4/19/78	19	35	0.11	16.61	0.095	324	621	16.60
4	4/20/78	8	56	0.04	17.32	0.052	309	536	17.53
4	4/20/78	9	12	0.02	21.68	0.057	324	495	21.86
4	4/20/78	18	20	0.02	14.19	0.046	309	485	16.05
4	4/21/78	17	48	0.01	17.47	0.044	306	454	18.15
4	4/22/78	18	32	0.0	17.42	0.043	304	434	18.90
4	4/23/78	18	20	0.0	15.10	0.037	282	420	16.35
4	4/24/78	18	34	0.0	12.36	0.036	303	409	12.88
4	4/26/78	18	34	0.0	15.73	0.016	219	376	17.65
4	4/27/78	17	51	0.0	15.45	0.018	194	373	17.33
4	4/28/78	18	17	0.0	15.70	0.013	203	378	17.86
4	4/29/78	18	20	0.0	16.26	0.013	211	384	17.69
4	4/30/78	17	48	0.0	14.20	0.009	193	351	16.74
4	5/ 1/78	17	50	0.0	14.48	0.008	207	306	16.82
4	5/ 2/78	19	56	0.0	14.40	0.009	166	294	16.82
4	5/ 3/78	17	27	0.0	14.71	0.009	230	287	16.68
4	5/ 4/78	18	2	0.0	13.42	0.010	242	383	16.95
4	5/ 5/78	18	27	0.0	13.61	0.010	338	374	15.99
4	5/ 6/78	18	13	0.0	12.56	0.008	346	382	15.99
4	5/ 7/78	17	23	0.0	11.83	0.011	341	403	15.07
4	5/ 8/78	17	53	0.0	13.12	0.016	375	366	21.97
4	5/ 9/78	17	35	0.0	13.15	0.008	271	361	17.01
4	5/10/78	17	51	0.0	13.44	0.012	330	363	17.70
4	5/11/78	17	57	0.0	12.81	0.015	223	364	16.54
4	5/12/78	18	7	0.0	13.90	0.014	336	384	16.39
4	5/13/78	11	57	0.13	15.51	0.139	320	562	16.58
4	5/13/78	20	26	0.02	17.35	0.082	296	550	16.89
4	5/14/78	7	56	0.0	17.29	0.044	305	427	16.62
4	5/14/78	17	58	0.0	17.29	0.034	319	433	17.20
4	5/15/78	17	28	0.0	16.44	0.012	277	478	16.81
4	5/16/78	17	55	0.0	15.77	0.010	281	446	17.03
4	5/17/78	17	57	0.0	15.63	0.014	296	489	16.95
4	5/18/78	17	40	0.0	15.64	0.007	303	499	17.15
4	5/19/78	17	40	0.0	14.35	0.016	289	466	19.39
4	5/20/78	17	59	0.0	14.79	0.011	258	445	16.76
4	5/21/78	17	42	0.0	14.90	0.014	316	464	16.76
4	5/22/78	18	21	0.0	15.18	0.010	274	458	16.76
4	5/24/78	17	45	0.0	15.38	0.013	400	455	16.56
4	5/25/78	18	0	0.0	13.71	0.010	372	408	16.72

SITE	DATE	HOUR	MIN	NH4-N	NO3-N	PO4-P	TDS	TDS+SEDT	CL-
				PPM					
4	5/26/78	18	47	0.01	13.71	0.017	378	382	16.81
4	5/27/78	18	0	0.06	12.70	0.029	338	372	16.39
4	5/28/78	18	5	0.0	14.07	0.012	351	351	16.44
4	5/29/78	17	20	0.08	12.88	0.027	437	542	10.90
4	5/30/78	18	2	0.06	12.70	0.026	440	500	10.79
4	5/31/78	17	45	0.07	15.59	0.025	430	491	11.74
4	6/ 1/78	18	35	0.15	12.84	0.044	415	1198	10.71
4	6/ 2/78	18	31	0.06	14.43	0.028	447	615	11.36
4	6/ 3/78	18	22	0.06	16.04	0.033	446	621	12.08
4	6/ 4/78	17	26	0.05	17.69	0.032	407	604	12.82
4	6/ 5/78	18	30	0.03	14.25	0.027	425	601	11.55
4	6/ 6/78	18	3	0.05	13.95	0.040	446	595	11.92
4	6/ 7/78	18	25	0.02	14.29	0.019	413	600	11.77
4	6/ 8/78	18	15	0.01	12.45	0.021	424	569	11.28
4	6/ 9/78	18	5	0.02	10.38	0.016	415	586	10.81
4	6/10/78	18	31	0.01	10.55	0.024	441	613	11.07
4	6/11/78	18	20	0.02	11.03	0.022	457	587	11.15
4	6/12/78	17	27	0.02	14.38	0.027	431	655	12.44
4	6/13/78	18	0	0.02	11.38	0.024	426	591	11.31
4	6/14/78	18	1	0.06	11.30	0.021	515	579	11.14
4	6/15/78	2	8	0.11	10.75	0.021	639	739	10.89
4	6/15/78	3	8	0.15	10.46	0.027	414	643	10.88
4	6/15/78	4	4	0.16	12.28	0.035	259	676	11.34
4	6/15/78	5	11	0.16	10.08	0.043	644	812	10.75
4	6/15/78	6	40	0.30	4.92	0.018	462	6888	6.04
4	6/15/78	8	40	0.27	5.17	0.028	271	6192	5.51
4	6/15/78	10	52	0.46	8.90	0.055	407	4028	9.96
4	6/15/78	14	14	0.45	12.00	0.057	624	1959	12.00
4	6/15/78	17	48	0.27	13.33	0.048	427	1062	11.55
4	6/15/78	22	6	0.20	14.42	0.043	465	730	11.73
4	6/16/78	9	28	0.17	15.56	0.044	449	621	12.43
4	6/16/78	17	39	0.16	15.56	0.041	444	595	12.48
4	6/17/78	17	28	0.16	13.78	0.035	283	470	11.60
4	6/18/78	17	17	0.13	16.13	0.036	304	447	11.84
4	6/19/78	17	43	0.08	16.85	0.035	288	430	12.24
4	6/20/78	1	55	0.19	9.08	0.038	430	5135	7.84
4	6/20/78	3	0	0.14	10.20	0.147	512	2090	9.84
4	6/20/78	4	20	0.15	10.75	0.133	548	1449	10.67
4	6/20/78	5	43	0.19	11.08	0.050	493	7296	10.78
4	6/20/78	7	30	0.34	4.77	0.062	81	10830	7.04
4	6/20/78	8	59	0.33	5.65	0.069	114	8104	7.53
4	6/20/78	10	46	0.29	8.30	0.067	421	4505	8.72
4	6/20/78	14	17	0.29	13.19	0.073	262	1299	11.39
4	6/20/78	18	4	0.22	13.79	0.072	292	875	12.28
4	6/20/78	22	53	0.16	12.65	0.062	292	717	13.28
4	6/21/78	10	0	0.09	13.82	0.035	261	599	13.30
4	6/21/78	18	37	0.07	17.54	0.043	270	548	13.28
4	6/22/78	17	4	0.06	17.13	0.042	296	422	12.85
4	6/23/78	18	1	0.09	15.65	0.043	276	395	13.47
4	6/24/78	18	7	0.06	14.79	0.039	299	409	13.65
4	6/25/78	18	59	0.05	15.60	0.041	284	389	13.60
4	6/26/78	18	18	0.04	15.25	0.036	281	376	13.47

TABLE F2-20. CONTINUED

SITE	DATE	HOUR	MIN	NH4-N	NO3-N	PO4-P	TDS	TDS+SEDT	CL-
				PPM					
4	6/27/78	18	15	0.04	14.09	0.017	297	506	16.83
4	6/28/78	18	23	0.09	12.40	0.040	288	623	14.93
4	6/28/78	19	54	0.11	11.85	0.040	294	845	15.20
4	6/28/78	21	25	0.16	9.28	0.014	308	2046	10.10
4	6/29/78	10	30	0.09	13.31	0.036	281	495	13.84
4	6/30/78	17	30	0.06	14.20	0.027	279	422	16.78
4	7/ 2/78	18	35	0.02	13.69	0.027	295	408	17.52
4	7/ 3/78	17	27	0.04	13.70	0.018	282	378	16.05
4	7/ 5/78	18	32	0.04	12.99	0.022	231	359	16.41
4	7/ 6/78	17	46	0.0	11.69	0.018	198	375	15.34
4	7/ 7/78	18	34	0.04	10.44	0.027	192	391	16.59
4	7/ 8/78	17	39	0.07	11.20	0.038	235	356	16.24
4	7/ 9/78	18	12	0.01	10.84	0.023	199	348	
4	7/10/78	18	41	0.0	10.65	0.012	184	567	15.79
4	7/11/78	18	20	0.0	10.39	0.010	192	317	16.49
4	7/12/78	18	3	0.0	10.37	0.002	205	319	
4	7/13/78	18	31	0.0	10.32	0.010	294	495	15.79
4	7/14/78	17	45	0.05	9.92	0.005	285	315	16.53
4	7/15/78	17	27	0.03	9.47	0.011	293	472	15.61
4	7/16/78	18	30	0.05	8.72	0.015	286	458	15.96
4	7/17/78	17	41	0.02	8.48	0.012	295	482	15.79
4	7/18/78	17	24	0.0	7.78	0.023	268	472	15.91
4	7/19/78	18	4	0.19	6.36	0.068	282	517	15.73
4	7/20/78	16	44	0.09	10.46	0.047	307	517	19.04
4	7/21/78	17	7	0.06	9.69	0.035	315	464	17.44
4	7/22/78	18	0	0.02	10.02	0.037	319	634	17.70
4	7/23/78	18	24	0.05	9.90	0.029	294	460	18.12
4	7/24/78	18	26	0.03	9.52	0.024	316	437	17.55
4	7/25/78	18	11	0.03	8.28	0.034	321	448	18.12
4	7/26/78	18	50	0.01	7.88	0.011	337	621	17.88
4	7/27/78	18	44	0.03	7.88	0.010	296	631	16.54
4	7/28/78	19	9	0.02	7.88	0.012	423	647	16.21
4	7/29/78	18	36	0.04	7.22	0.009	441	577	17.81
4	7/30/78	19	40	0.03	7.25	0.014	544	678	17.43
4	7/31/78	18	15	0.0	7.18	0.014	513	542	19.23
4	8/ 1/78	19	30	0.04	6.87	0.009	383	636	17.62
4	8/ 2/78	18	2	0.02	6.33	0.013	261	484	18.76
4	8/ 3/78	18	21	0.04	6.09	0.017	343	604	18.69
4	8/ 4/78	18	1	0.0	5.91	0.014	272	467	19.41
4	8/ 5/78	18	1	0.06	5.18	0.009	281	637	17.19
4	8/ 6/78	17	55	0.09	4.82	0.010	269	488	18.23
4	8/ 7/78	18	28	0.04	4.35	0.009	317	464	17.27
4	8/ 8/78	18	14	0.10	3.88	0.015	399	429	17.01
4	8/10/78	18	55	0.02	3.21	0.018	379	450	17.86
4	8/12/78	17	57	0.05	2.97	0.013	365	442	23.52
4	8/14/78	17	20	0.27	2.48	0.023	375	476	17.56
4	8/16/78	16	15	0.10	2.04	0.010	258	441	21.93
4	8/18/78	19	0	0.17	1.90	0.008	218	452	17.11
4	8/20/78	17	30	0.13	1.73	0.009	264	457	20.64
4	8/22/78	18	27	0.16	2.35	0.020	299	406	18.31
4	8/24/78	18	35	0.22	1.65	0.015	290	1451	23.06
4	8/26/78	18	27	0.22	1.86	0.018	241	380	17.69
4	8/26/78	23	5	0.21	1.40	0.240	144	1135	7.90
4	8/27/78	1	21	0.37	1.71	0.121	110	1282	4.80
4	8/27/78	4	6	0.76	5.59	0.105	210	879	17.76
4	8/27/78	8	36	0.76	6.78	0.194	262	683	18.61
4	8/27/78	12	58	0.44	6.78	0.102	218	513	14.83
4	8/27/78	17	58	0.35	9.03	0.099	288	644	16.88
4	8/28/78	8	30	0.24	8.15	0.135	321	525	18.02
4	8/28/78	18	45	0.21	7.65	0.054	368	527	19.65
4	8/29/78	18	26	0.17	7.34	0.043	352	510	18.49
4	8/30/78	19	18	0.13	7.68	0.044	367	486	18.73
4	8/31/78	18	14	0.13	7.02	0.027	340	450	17.58
4	9/ 1/78	17	59	0.0	6.66	0.003	239	282	18.28
4	9/ 2/78	17	41						
4	9/ 3/78	17	48	0.09	6.08	0.019	317	388	18.73
4	9/ 5/78	18	42	0.11	5.80	0.021	320	422	19.65
4	9/ 7/78	17	59						
4	9/ 9/78	18	10	0.20	5.07	0.021	290	525	22.92
4	9/11/78	18	42	0.08	4.41	0.022	278	468	19.36
4	9/13/78	18	28	0.29	4.05	0.231	280	506	18.35
4	9/13/78	23	57	0.27	3.43	0.252	232	934	18.73
4	9/14/78	1	4	0.76	3.20	0.606	306	917	29.58
4	9/14/78	2	52	0.0	3.06	0.117	112	2237	5.18
4	9/14/78	8	59	0.04	2.29	0.172	267	811	16.34
4	9/14/78	9	17	0.11	1.87	0.213	196	1017	9.04
4	9/14/78	13	49	0.22	6.23	0.178	299	559	14.91
4	9/14/78	18	25	0.23	8.23	0.080	279	416	17.52
4	9/15/78	8	38	0.18	11.23	0.042	349	561	20.75
4	9/16/78	18	20	0.11	9.18	0.019	298	410	18.57
4	9/16/78	18	56	0.14	10.41	0.026	322	446	20.32
4	9/17/78	17	38	0.11	8.28	0.019	297	382	18.81
4	9/18/78	18	23	0.22	9.47	0.063	333	439	22.41
4	9/19/78	18	15	0.08	10.86	0.031	347	422	20.70
4	9/20/78	9	2	0.24	7.68	0.154	261	723	14.75
4	9/20/78	13	38	0.17	6.46	0.125	259	1129	11.27
4	9/20/78	15	13	0.20	7.42	0.097	270	1004	11.99
4	9/20/78	17	56	0.24	8.13	0.078	265	948	11.67
4	9/20/78	19	55	0.19	9.02	0.091	281	703	12.29
4	9/20/78	23	48	0.19	11.40	0.128	358	875	15.38
4	9/21/78	4	46	0.15	11.93	0.080	324	652	15.12
4	9/21/78	10	32	0.11	12.21	0.087	322	646	15.83
4	9/21/78	18	14	0.09	13.35	0.069	357	578	16.59
4	9/22/78	10	31	0.07	13.46	0.051	337	533	16.94
4	9/22/78	18	8	0.06	14.11	0.048	340	519	17.25
4	9/23/78	18	12	0.06	13.89	0.036	343	504	17.69
4	9/24/78	18	4	0.06	14.21	0.037	356	500	17.85
4	9/25/78	18	3	0.05	13.22	0.034	333	494	17.85
4	9/26/78	18	43	0.05	13.03	0.036	335	480	17.31
4	9/27/78	17	20	0.05	12.93	0.033	305	469	17.97
4	9/28/78	18	38	0.05	12.56	0.031	319	470	18.49
4	9/29/78	18	8	0.05	11.88	0.034	297	456	17.53
4	9/30/78	18	20	0.07	12.31	0.033	293	460	17.97
4	10/ 1/78	19	21	0.05	12.06	0.028	298	445	17.97

TABLE F2-20. CONCLUDED

SITE	DATE	HOUR	MIN	NH4-N	NO3-N	PO4-P	TDS	TDS+SEDT	CL-
				PPM					
4	10/ 2/78	17	59	0.09	10.41	0.064	311	503	18.13
4	10/ 3/78	18	20	0.0	11.02	0.029	258	435	17.43
4	10/ 4/78	18	7	0.0	11.84	0.017	307	422	19.12
4	10/ 5/78	17	26	0.0	11.92	0.019	307	426	17.93
4	10/ 6/78	17	25	0.0	11.50	0.015	273	411	17.70
4	10/ 7/78	18	11	0.0	11.69	0.020	325	412	18.56
4	10/ 8/78	18	4	0.0	11.59	0.020	307	424	19.33
4	10/ 9/78	18	37	0.04	10.99	0.023	321	417	19.25
4	10/10/78	17	51	0.02	11.75	0.043	319	419	20.26
4	10/11/78	18	48	0.0	12.34	0.023	314	399	19.12
4	10/12/78	18	14	0.0	11.64	0.017	324	411	18.37
4	10/13/78	18	12	0.0	12.19	0.018	314	385	18.29
4	10/14/78	19	17	0.0	11.09	0.019	340	410	18.71
4	10/15/78	17	28	0.0	12.50	0.023	328	390	19.34
4	10/16/78	17	17	0.0	11.63	0.015	318	360	17.35
4	10/17/78	20	5	0.0	10.92	0.017	313	489	16.48
4	10/18/78	21	53	0.0	11.38	0.020	296	487	16.28
4	10/19/78	18	25	0.0	10.77	0.026	297	410	16.09
4	10/20/78	20	0	0.0	10.92	0.023	313	473	14.17
4	10/21/78	18	26	0.0	11.17	0.024	301	429	14.86
4	10/22/78	18	22	0.0	11.08	0.027	298	448	13.76
4	10/23/78	18	12	0.0	11.08	0.025	301	418	13.12
4	10/24/78	17	17	0.0	10.66	0.023	319	419	12.78
4	10/25/78	18	31	0.01	10.44	0.019	275	424	18.42
4	10/26/78	18	41	0.63	10.95	0.014	289	399	18.92
4	10/27/78	19	3	0.46	11.10	0.014	278	399	17.56
4	10/28/78	17	15	0.01	10.32	0.014	284	392	18.60
4	10/28/78	17	16	0.24	10.85	0.012	284	402	18.01
4	10/30/78	17	28	0.04	10.50	0.014	268	374	20.58
4	10/31/78	18	21	0.26	10.05	0.020	298	381	18.21
4	11/ 1/78	17	22	0.03	10.08	0.026	324	370	18.37
4	11/ 2/78	17	57	0.0	10.65	0.021	282	366	17.24
4	11/ 3/78	17	45	0.15	9.58	0.020	295	367	17.55
4	11/ 4/78	18	1	0.03	8.99	0.021	293	351	18.16
4	11/ 5/78	17	47	0.15	8.95	0.022	297	366	24.20
4	11/ 6/78	17	43	0.0	9.67	0.021	290	348	18.08
4	11/ 7/78	17	58	0.06	10.82	0.012	325	415	18.35
4	11/ 8/78	18	2	0.09	10.43	0.010	316	411	17.22
4	11/ 9/78	18	3	0.05	9.93	0.012	364	400	18.11
4	11/10/78	17	30	0.05	9.44	0.015	273	373	18.15
4	11/11/78	17	8	0.06	9.96	0.011	309	377	17.14
4	11/12/78	17	37	0.11	9.25	0.016	257	427	16.76
4	11/13/78	9	14	1.12	8.85	0.513	330	1454	25.71
4	11/13/78	13	55	0.39	11.17	0.074	270	1229	21.01
4	11/13/78	18	40	0.19	13.03	0.080	322	867	21.41
4	11/14/78	8	7	0.06	12.98	0.055	286	553	18.33
4	11/14/78	18	26	0.06	12.24	0.029	275	508	17.88
4	11/15/78	17	24	0.05	13.35	0.032	265	429	17.43
4	11/16/78	17	2	0.05	12.24	0.051	266	370	17.84
4	11/17/78	17	26	0.17	11.41	0.102	254	926	17.51
4	11/18/78	3	45	0.08	14.02	0.062	254	617	18.37
4	11/18/78	17	56	0.06	14.04	0.039	252	595	18.25

SITE	DATE	HOUR	MIN	NH4-N	NO3-N	PO4-P	TDS	TDS+SEDT	CL-
				PPM					
4	11/18/78	18	6	0.0	14.56	0.017	229	342	14.25
4	11/18/78	18	11	0.04	16.08	0.038	271	681	22.85
4	11/19/78	17	44	0.02	13.80	0.026	253	511	17.30
4	11/20/78	17	44	0.02	14.69	0.019	231	483	16.86
4	11/21/78	17	44	0.02	14.76	0.014	245	460	16.32
4	11/22/78	17	33	0.02	13.98	0.019	227	450	16.32
4	11/23/78	17	49	0.0	12.57	0.034	233	425	16.51
4	11/24/78	18	9	0.02	11.85	0.021	262	405	15.74
4	11/25/78	17	55	0.02	13.11	0.019	331	405	16.16
4	11/26/78	18	18	0.04	12.97	0.018	338	370	16.05
4	11/27/78	18	1	0.01	13.11	0.010	323	363	16.40
4	11/28/78	17	46	0.0	13.70	0.022	314	404	16.56
4	11/29/78	17	57	0.05	12.67	0.008	260	267	11.34
4	11/30/78	17	29	0.05	12.59	0.009	223	242	11.66
4	12/ 1/78	17	41	0.05	12.67	0.008	249	257	11.52
4	12/ 2/78	17	38	0.06	13.07	0.010	245	265	11.48
4	12/ 3/78	17	25	0.07	12.36	0.009	239	313	11.66
4	12/ 4/78	17	39	0.06	13.66	0.006	252	315	11.20
4	12/ 5/78	18	0	0.05	13.08	0.003	233	353	11.57
4	12/ 6/78	17	58	0.06	12.50	0.001	265	379	11.76
4	12/ 7/78	17	35	0.05	12.62	0.027	267	375	11.92
4	12/ 8/78	17	52	0.07	9.92	0.008	273	382	12.44
4	12/ 9/78	17	58	0.06	11.19	0.007	266	366	11.86
4	12/10/78	18	12	0.06	11.88	0.013	238	345	11.72
4	12/11/78	18	9	0.07	11.42	0.011	252	383	11.26
4	12/12/78	18	19	0.06	11.08	0.035	250	360	11.31
4	12/13/78	17	48	0.05	10.64	0.009	242	372	11.80
4	12/14/78	17	17	0.06	12.47	0.016	258	401	11.77
4	12/15/78	17	32	0.05	12.26	0.017	290	344	11.96
4	12/16/78	17	43	0.06	11.78	0.008	259	357	11.94
4	12/17/78	17	35	0.06	11.32	0.012	277	373	12.37
4	12/18/78	17	9	0.06	11.45	0.012	253	365	11.61
4	12/19/78	17	32	0.07	11.34	0.013	251	386	11.81
4	12/20/78	17	58	0.07	11.61	0.012	255	399	12.55
4	12/21/78	17	42	0.05	11.76	0.009	299	445	22.54
4	12/22/78	17	12	0.05	12.13	0.010	271	392	26.92
4	12/23/78	17	28	0.04	11.73	0.011	280	402	21.06
4	12/24/78	17	15	0.04	11.97	0.011	289	417	19.40
4	12/25/78	17	17	0.05	12.40	0.011	307	452	25.86
4	12/26/78	17	5	0.11	11.77	0.012	300	422	22.54
4	12/27/78	17	12	0.0	11.24	0.011	280	426	20.58
4	12/28/78	17	9	0.02	10.75	0.012	278	396	21.07
4	12/29/78	17	44	0.05	11.39	0.012	288	420	21.79
4	12/30/78	17	9	0.04	10.56	0.010	309	475	19.04

TABLE F2-21. FOUR MILE CREEK WATERSHED RUNOFF NUTRIENT CONCENTRATION DATA FOR 1978 SITE 5

SITE	DATE	HOUR	MIN	NH4-N	NO3-N	PO4-P	TDS	TDS+SEDT	CL-
				PPM					
5	1/24/78	13	0	0.10	9.95	0.101	272	497	23.64
5	2/16/78	13	10	0.08	8.67	0.114	307	395	22.66
5	2/28/78	12	40	0.32	8.29	0.050	342	374	25.29
5	3/ 9/78	12	5	0.13	7.33	0.155	344	419	23.54
5	3/17/78	13	20	3.16	6.00	0.751	272	413	18.10
5	3/18/78	8	47	2.62	6.99	0.658	207	342	18.58
5	3/18/78	13	20	2.62	6.76	0.660	207	351	18.97
5	3/18/78	18	40	2.20	6.37	0.549	186	379	16.85
5	3/19/78	2	20	2.56	4.40	0.607	106	429	12.47
5	3/19/78	7	45	2.44	4.68	0.586	130	322	12.64
5	3/19/78	14	10	2.07	4.17	0.577	95	575	11.52
5	3/19/78	20	25	2.31	3.16	0.848	87	757	10.94
5	3/20/78	2	4	1.79	4.15	0.872	95	331	10.60
5	3/20/78	8	47	1.53	5.03	0.664	180	357	11.15
5	3/20/78	14	4	1.44	5.26	0.620	188	530	11.28
5	3/20/78	19	36	1.86	4.34	0.665	174	978	10.50
5	3/21/78	2	40	1.30	4.70	0.627	165	398	9.44
5	3/21/78	8	25	0.95	5.79	0.527	114	380	10.53
5	3/21/78	14	26	1.22	5.38	0.528	60	1168	10.57
5	3/21/78	19	52	1.31	3.83	0.636	0	1359	7.61
5	3/22/78	2	43	0.83	7.53	0.419	101	585	11.28
5	3/22/78	13	50	2.13	9.52	0.620	180	888	15.61
5	3/22/78	20	15	1.07	7.26	0.475	219	849	11.10
5	3/23/78	2	33	0.48	8.48	0.265	294	363	12.99
5	3/23/78	8	53	0.22	10.27	0.143	321	372	16.36
5	3/23/78	20	33	0.41	10.21	0.177	343	373	16.26
5	3/24/78	8	38	0.17	11.07	0.116	337	406	16.83
5	3/24/78	19	46	0.16	11.72	0.106	360	379	18.40
5	3/27/78	15	0	0.15	9.59	0.109	345	528	16.49
5	4/ 3/78	17	25	0.0	11.48	0.060	159	245	20.50
5	4/ 5/78	18	17	0.05	9.63	0.046	263	707	19.63
5	4/ 5/78	19	25	0.17	7.89	0.084	252	1741	15.96
5	4/ 5/78	20	36	0.18	8.37	0.128	275	1424	17.22
5	4/ 5/78	21	22	0.35	9.05	0.158	316	1620	22.44
5	4/ 5/78	22	26	6.86	4.18	0.784	383	5478	34.01
5	4/ 6/78	9	39	0.33	13.22	0.238	374	827	21.93
5	4/ 6/78	18	3	0.06	13.69	0.153	358	513	24.26
5	4/ 9/78	18	55	0.01	5.53	0.082	322	900	21.01
5	4/ 9/78	19	56	0.12	4.43	0.146	278	1869	16.47
5	4/ 9/78	20	48	1.09	1.33	0.393	238	14890	17.79
5	4/ 9/78	21	55	0.65	3.96	0.176	144	10900	13.58
5	4/ 9/78	22	55	0.44	5.56	0.282	149	5825	13.12
5	4/10/78	2	20	0.34	13.20	0.337	321	1346	20.24
5	4/10/78	4	11	0.26	14.52	0.296	324	1177	19.46
5	4/10/78	8	19	0.18	15.36	0.250	342	796	20.66
5	4/10/78	12	59	0.05	15.84	0.120	339	977	21.45
5	4/10/78	18	34	0.05	16.49	0.083	357	687	16.62
5	4/15/78	19	1	0.0	11.89	0.028	338	588	12.49
5	4/17/78	11	40	0.03	14.88	0.029	336	404	21.36
5	4/17/78	15	4	0.05	9.35	0.054	425	1645	10.65
5	4/17/78	17	50	1.04	4.10	0.076	190	6893	8.88
5	4/17/78	18	54	0.93	4.41	0.119	235	5468	7.69
5	4/17/78	19	51	0.83	4.90	0.137	217	4775	8.18
5	4/17/78	23	58	0.49	7.62	0.189	252	4703	8.88
5	4/18/78	2	16	0.66	3.17	0.203	111	11180	3.71
5	4/18/78	4	20	0.53	4.85	0.331	369	4801	5.28
5	4/18/78	8	13	0.49	4.27	0.319	422	3103	3.93
5	4/18/78	15	15	0.38	12.71	0.239	584	1185	11.31
5	4/18/78	18	11	0.27	17.13	0.201	571	1180	13.54
5	4/18/78	20	40	0.52	11.29	0.253	596	1288	9.28
5	4/19/78	0	8	0.21	11.33	0.212	669	750	9.08
5	4/19/78	4	59	0.23	17.33	0.199	624	668	17.51
5	4/19/78	11	49	0.14	19.01	0.149	414	592	16.88
5	4/19/78	17	53	0.06	21.68	0.095	506	569	20.87
5	4/21/78	17	48	0.01	15.60	0.036	400	478	14.40
5	4/24/78	12	10	0.04	21.30	0.043	265	329	22.08
5	5/ 2/78	14	50	0.0	17.20	0.008	334	397	19.37
5	5/ 8/78	15	5	0.0	17.04	0.020	358	425	19.37
5	5/13/78	12	18	0.0	18.82	0.106	250	542	19.81
5	5/13/78	20	38	0.0	18.99	0.072	291	524	20.39
5	5/14/78	8	10	0.0	18.82	0.029	228	482	18.56
5	5/14/78	18	11	0.0	19.24	0.024	302	435	18.56
5	5/15/78	13	30	0.0	18.96	0.014	353	412	18.56
5	5/22/78	19	28	0.0	17.55	0.004	339	373	18.61
5	6/ 7/78	15	8	0.0	17.56	0.049	434	452	17.51
5	6/14/78	16	25	0.08	16.07	0.052	434	605	13.20
5	6/15/78	1	54	0.20	15.91	0.025	333	859	13.37
5	6/15/78	2	49	0.38	12.68	0.018	172	6229	8.00
5	6/15/78	3	42	0.33	7.79	0.014	119	12170	6.22
5	6/15/78	4	54	0.47	6.48	0.032	95	10890	10.53
5	6/15/78	6	25	0.47	8.75	0.044	252	5056	10.60
5	6/15/78	9	18	0.54	13.65	0.084	351	3106	13.22
5	6/15/78	11	16	0.34		0.087	341	1649	13.34
5	6/15/78	18	17	0.20	21.60	0.062	339	831	14.69
5	6/16/78	9	2	0.11	19.95	0.053	339	514	14.02
5	6/20/78	1	41	0.11	15.91	0.058	365	823	12.90
5	6/20/78	2	41	0.20	11.61	0.048	273	7616	12.20
5	6/20/78	3	35	0.19	5.00	0.073	69	15410	4.35
5	6/20/78	4	56	0.31	4.62	0.089	87	11600	6.57
5	6/20/78	7	56	0.33	10.43	0.096	219	4956	9.96
5	6/20/78	9	26	0.31	12.65	0.104	290	3723	11.15
5	6/20/78	11	14	0.25	16.44	0.111	330	2322	12.28
5	6/20/78	14	46	0.17	18.66	0.094	330	979	13.75
5	6/20/78	18	39	0.13	18.19	0.079	316	952	14.07
5	6/21/78	9	47	0.06	18.32	0.034	287	794	13.71
5	6/27/78	11	0	0.02	15.74	0.020	296	610	13.63
5	6/28/78	18	10	0.12	4.94	0.058	111	11320	4.13
5	6/28/78	18	38	0.18	12.63	0.031	619	3405	15.60
5	6/28/78	21	50	0.15	6.58	0.072	398	3272	8.34
5	6/29/78	19	25	0.03	15.02	0.023	318	508	18.44
5	7/ 3/78	14	55	0.0	15.83	0.039	344	369	13.71
5	7/26/78	15	5	0.0	9.39	0.040	328	411	20.59
5	8/ 8/78	15	11	0.15	2.74	0.016	353	505	20.56
5	8/14/78	14	31	0.02	2.67	0.011	279	389	18.21

TABLE F2-21. CONCLUDED

SITE	DATE	HOUR	MIN	NH4-N	NO3-N	PO4-P	TDS	TDS+SEDT	CL-
				----------	----------	PPM	----------	----------	
5	8/21/78	16	45	0.14	2.56	0.094	318	423	20.64
5	8/26/78	22	50	0.35	2.30	0.126	160	959	9.58
5	8/27/78	1	6	0.43	1.92	0.067	121	1363	4.93
5	8/27/78	3	53	0.52	5.81	0.238	283	766	15.15
5	8/27/78	8	25	0.46	6.82	0.280	293	598	15.35
5	8/27/78	12	46	0.37	6.64	0.143	319	633	17.63
5	8/27/78	17	46	0.36	7.72	0.350	415	571	18.25
5	8/28/78	8	19	0.22	8.30	0.114	438	605	21.15
5	8/28/78	18	35	0.16	10.65	0.061	385	530	21.56
5	8/31/78	14	54	0.11	8.06	0.027	337	500	21.03
5	9/13/78	23	27	0.0	7.42	0.485	573	691	25.37
5	9/14/78	2	38	0.0	6.32	0.126	520	2849	16.43
5	9/14/78	5	0	0.37	5.70	0.366	414	1131	18.02
5	9/14/78	8	45	0.22	5.45	0.288	531	842	16.86
5	9/14/78	13	34	0.15	4.54	0.229	424	691	20.12
5	9/14/78	14	45	0.15	3.78	0.295	401	601	19.64
5	9/14/78	18	47	0.23	10.96	0.136	298	656	22.77
5	9/15/78	0	31	0.03	1.36	0.065	423	1832	22.11
5	9/15/78	8	58	0.13	13.71	0.040	348	605	23.40
5	9/19/78	14	55	0.0	0.02	0.245	180	507	10.57
5	9/20/78	10	29	0.22	10.02	0.196	251	1055	17.45
5	9/20/78	13	20	0.39	7.84	0.303	202	1610	14.35
5	9/20/78	14	59	0.18	8.47	0.126	192	966	12.77
5	9/20/78	17	36	0.03	12.17	0.126	224	834	13.27
5	9/20/78	20	17	0.18	11.70	0.216	252	723	16.22
5	9/20/78	23	27	0.18	13.13	0.234	308	786	17.02
5	9/21/78	4	25	0.11	14.09	0.173	297	654	17.49
5	9/21/78	10	52	0.12	15.29	0.126	322	647	18.72
5	9/21/78	17	58	0.06	15.55	0.082	391	604	19.71
5	9/22/78	10	18	0.04	16.31	0.054	410	637	19.92
5	9/27/78	13	45	0.02	16.71	0.037	401	551	20.27
5	10/ 3/78	14	25	0.0	14.58	0.076	445	530	20.46
5	10/ 9/78	11	25	0.0	10.10	0.036	357	515	24.44
5	10/11/78	13	25	0.0	14.15	0.025	339	443	22.79
5	10/17/78	13	45	0.0	13.99	0.032	406	409	22.56
5	10/25/78	13	46	0.0	13.37	0.051	396	430	22.93
5	10/31/78	11	40	0.03	12.65	0.016	312	429	24.20
5	11/ 7/78	11	40	0.04	12.65	0.051	393	494	24.15
5	11/13/78	8	57	0.34	12.32	0.140	362	1742	23.45
5	11/13/78	14	14	0.17	14.05	0.126	358	1229	22.67
5	11/13/78	18	59	0.09	14.37	0.074	364	1007	21.72
5	11/14/78	8	24	0.0	15.46	0.025	362	711	20.52
5	11/14/78	15	10	0.01	16.11	0.033	373	514	21.09
5	11/17/78	17	59	0.10	15.87	0.083	375	822	21.72
5	11/18/78	4	5	0.04	15.24	0.079	308	740	20.88
5	11/21/78	14	35	0.02	16.08	0.023	256	540	19.97
5	11/29/78	16	0	0.0	15.36	0.029	340	451	21.36
5	12/ 6/78	12	0	0.05	15.12	0.004	292	364	12.65
5	12/14/78	9	18	0.05	15.24	0.001	291	349	13.75
5	12/21/78	12	40	0.04	16.17	0.007	303	386	13.09
5	12/29/78	10	5	0.04	13.48	0.012	302	430	20.34

TABLE F2-22. FOUR MILE CREEK WATERSHED RUNOFF NUTRIENT CONCENTRATION DATA FOR 1978 SITE 6

SITE	DATE	HOUR	MIN	NH4-N	NO3-N	PO4-P	TDS	TDS+SEDT	CL-
				PPM					
6	1/24/78	13	16	0.0	10.95	0.067	232	349	13.43
6	3/19/78	14	25	1.20	4.55	0.622	158	255	8.21
6	3/19/78	20	19	1.15	2.95	0.552	127	205	7.49
6	3/20/78	13	59	1.00	3.70	0.552	147	460	9.01
6	3/20/78	19	31	1.00	2.35	0.581	117	325	7.16
6	3/21/78	14	20	0.82	1.98	0.452	121	1439	5.89
6	3/21/78	19	45	0.69	4.34	0.450	184	1008	9.40
6	3/22/78	3	36	0.51	6.25	0.311	248	602	12.38
6	3/22/78	8	47	0.32	7.78	0.188	284	457	13.52
6	3/22/78	13	43	0.59	4.30	0.321	125	1718	7.94
6	3/22/78	20	10	0.47	5.93	0.351	178	453	10.39
6	3/23/78	2	25	0.23	8.50	0.174	244	328	12.51
6	3/23/78	8	45	0.18	9.00	0.114	304	335	13.83
6	3/23/78	20	27	0.26	7.37	0.251	292	322	12.21
6	3/24/78	8	32	0.06	9.18	0.079	329	342	14.61
6	3/24/78	19	39	0.08	9.28	0.062	313	326	14.47
6	3/27/78	15	10	0.19	4.80	0.175	213	391	8.07
6	4/ 3/78	12	20	0.0	9.90	0.052	147	237	19.17
6	4/ 5/78	18	20	0.46	3.85	0.126	104	10020	5.47
6	4/ 5/78	19	2	0.49	4.82	0.294	104	8361	8.07
6	4/ 5/78	19	29	0.57	4.75	0.608	161	4470	15.89
6	4/ 5/78	19	40	0.66	5.77	0.880	218	3542	16.29
6	4/ 5/78	20	43	0.65	8.63	0.890	281	1583	24.78
6	4/ 5/78	21	32	0.51	10.03	0.678	311	999	18.58
6	4/ 5/78	22	35	0.31	11.02	0.446	331	729	19.37
6	4/ 6/78	9	32	0.06	12.86	0.131	321	416	16.53
6	4/ 6/78	17	54	0.01	13.10	0.047	284	353	15.72
6	4/ 9/78	19	0	0.35	2.52	0.126	97	15180	2.99
6	4/ 9/78	20	2	0.43	3.30	0.434	126	5939	7.65
6	4/ 9/78	21	4	0.40	6.60	0.573	205	2963	11.85
6	4/ 9/78	22	5	0.28	9.91	0.465	267	1457	18.54
6	4/ 9/78	23	5	0.21	11.74	0.314	301	2112	15.60
6	4/10/78	2	27	0.03	13.32	0.122	300	662	16.92
6	4/10/78	4	19	0.06	13.75	0.104	305	682	16.53
6	4/10/78	8	24	0.0	14.16	0.080	299	391	16.07
6	4/10/78	18	30	0.01	12.66	0.050	391	435	15.94
6	4/17/78	10	48	0.01	14.18	0.024	345	372	15.19
6	4/17/78	15	13	0.28	3.03	0.172	246	6378	3.45
6	4/17/78	15	48	0.20	2.93	0.321	180	4319	6.98
6	4/17/78	16	25	0.21	3.48	0.475	426	3836	9.25
6	4/17/78	17	10	0.30	4.62	0.548	157	2386	9.85
6	4/17/78	17	13	0.29	2.73	0.168	220	6227	3.50
6	4/17/78	17	56	0.36	8.87	0.494	425	1563	12.91
6	4/17/78	17	57	0.38	6.38	0.610	375	1902	10.60
6	4/17/78	19	59	0.26	8.62	0.400	454	1126	11.24
6	4/18/78	0	6	0.34	3.11	0.253	953	11300	3.79
6	4/18/78	2	25	0.31	6.84	0.468	86	3229	7.99
6	4/18/78	4	35	0.16	9.50	0.203	169	2098	8.96
6	4/18/78	8	18	0.22	12.69	0.310	172	832	14.87
6	4/18/78	12	0	0.08	12.97	0.136	206	610	11.74
6	4/18/78	12	54	0.0	13.92	0.071	309	369	16.31
6	4/18/78	15	21	0.05	16.97	0.092	206	491	15.12
6	4/18/78	18	18	0.06	11.18	0.132	173	717	10.20
6	4/18/78	20	49	0.09	10.80	0.263	234	573	11.42
6	4/19/78	0	14	0.07	13.44	0.145	265	483	13.61
6	4/19/78	5	4	0.03	8.75	0.102	240	419	8.66
6	4/19/78	11	43	0.02	15.87	0.066	257	367	15.02
6	4/19/78	19	49	0.01	16.20	0.054	281	370	15.02
6	4/20/78	9	5	0.0	15.95	0.039	276	327	14.77
6	4/24/78	12	8	0.01	18.83	0.030	190	243	15.73
6	5/ 2/78	15	0	0.0	15.19	0.004	274	332	13.93
6	5/ 8/78	15	0	0.0	13.54	0.007	291	348	15.02
6	5/12/78	19	30	0.0	15.00	0.007	196	306	14.91
6	5/13/78	12	26	0.0	16.53	0.019	309	339	16.14
6	5/13/78	20	32	0.0	16.87	0.015	233	327	16.02
6	5/14/78	8	4	0.0	16.43	0.015	213	320	15.99
6	5/14/78	18	5	0.0	17.76	0.014	271	322	16.40
6	5/15/78	13	40	0.0	17.30	0.017	320	349	16.59
6	6/ 7/78	15	20	0.0	16.27	0.026	353	383	15.34
6	6/14/78	16	30	0.07	14.01	0.048	359	403	10.94
6	6/15/78	1	44	0.47	12.25	0.021	191	9055	8.18
6	6/15/78	2	40	0.46	9.74	0.012	141	8534	6.43
6	6/15/78	2	56	0.41	8.67	0.030	142	9077	4.96
6	6/15/78	3	35	0.40	14.86	0.024	185	3868	7.38
6	6/15/78	4	47	0.63	23.81	0.067	273	1390	11.47
6	6/15/78	6	20	0.18	18.85	0.062	287	722	11.77
6	6/15/78	9	10	0.11	18.55	0.047	258	496	12.29
6	6/15/78	11	11	0.07	18.08	0.029	233	403	12.29
6	6/15/78	18	10	0.04	15.00	0.023	270	443	10.80
6	6/16/78	9	13	0.05	17.75	0.021	413	611	12.30
6	6/20/78	1	34	0.31	12.65	0.011	362	8859	8.13
6	6/20/78	2	32	0.36	8.42	0.022	253	21830	4.42
6	6/20/78	3	25	0.31	8.39	0.040	326	9243	5.65
6	6/20/78	4	50	0.24	10.91	0.253	412	3093	11.21
6	6/20/78	7	48	0.18	16.50	0.211	513	783	13.02
6	6/20/78	9	20	0.14	15.53	0.153	497	620	12.64
6	6/20/78	11	4	0.09	15.18	0.102	488	573	12.26
6	6/20/78	14	38	0.05	11.50	0.038	439	543	12.33
6	6/20/78	18	32	0.05	15.88	0.040	282	524	12.33
6	6/21/78	9	53	0.07	18.16	0.029	238	494	12.40
6	6/27/78	11	0	0.03	17.11	0.012	239	514	12.59
6	6/28/78	20	3	0.16	9.37	0.217	501	1361	
6	6/28/78	21	43	0.15	13.01	0.083	514	574	
6	6/29/78	4	56	0.04	13.71	0.032	287	383	15.71
6	6/29/78	19	19	0.02	15.04	0.020	298	361	13.83
6	7/ 3/78	15	0	0.03	15.13	0.030	326	342	13.12
6	7/26/78	15	10	0.0	10.51	0.049	333	423	17.69
6	8/ 8/78	15	6	0.0	11.26	0.025	316	437	16.61
6	8/14/78	14	37	0.13	6.52	0.030	294	406	27.43
6	8/21/78	17	0	0.19	5.62	0.398	367	481	22.07
6	8/26/78	22	57	0.27	2.63	0.686	121	879	7.98
6	8/27/78	1	13	0.26	5.94	0.686	246	543	15.54
6	8/27/78	4	0	0.10	8.70	0.213	324	544	17.94
6	8/27/78	8	30	0.05	8.03	0.115	279	527	16.50

TABLE F2-22. CONCLUDED

SITE	DATE	HOUR	MIN	NH4-N	NO3-N	PO4-P	TDS	TDS+SEDT	CL-
				ppm					
6	8/27/78	12	53	0.0	8.38	0.073	280	350	15.60
6	8/27/78	17	50	0.03	2.07	0.074	164	1715	3.67
6	8/28/78	8	23	0.02	8.95	0.061	269	656	15.46
6	8/28/78	18	41	0.04	9.14	0.057	314	455	15.46
6	8/31/78	14	51	0.02	8.72	0.045	333	457	27.54
6	9/13/78	23	20	0.01	0.63	0.103	15	3718	1.40
6	9/13/78	23	51	0.01	1.14	0.199	23	3041	1.75
6	9/14/78	2	31	0.18	6.59	0.652	223	678	11.63
6	9/14/78	4	52	0.13	8.40	0.414	328	515	14.79
6	9/14/78	8	51	0.0	9.40	0.131	297	444	15.02
6	9/14/78	13	41	0.0	10.28	0.068	282	420	14.65
6	9/14/78	14	49	0.02	10.55	0.078	301	410	14.75
6	9/14/78	18	40	0.01	10.23	0.029	298	364	15.07
6	9/15/78	0	23	0.12	1.82	0.448	43	66	4.26
6	9/15/78	0	57	0.15	2.72	0.593	149	1227	6.51
6	9/15/78	8	51	0.01	10.67	0.023	297	377	15.07
6	9/19/78	14	50	0.0	9.00	0.043	369	457	14.28
6	9/20/78	10	36	0.0	4.43	0.299	182	690	6.83
6	9/20/78	14	48	0.02	12.27	0.225	336	471	12.77
6	9/20/78	14	51	0.03	12.27	0.171	322	404	12.94
6	9/20/78	17	42	0.01	13.18	0.108	307	371	13.80
6	9/20/78	20	7	0.01	13.29	0.077	310	387	13.98
6	9/20/78	23	36	0.0	12.60	0.055	305	382	13.98
6	9/21/78	4	33	0.02	13.45	0.047	345	404	14.01
6	9/21/78	10	44	0.02	13.13	0.031	298	386	13.80
6	9/21/78	18	4	0.01	13.22	0.037	331	383	13.83
6	9/22/78	10	24	0.0	13.14	0.029	327	379	13.87
6	9/26/78	13	20	0.06	9.08	0.382	321	427	11.68
6	9/27/78	13	50	0.02	11.79	0.027	325	387	13.17
6	10/ 3/78	14	30	0.02	12.28	0.039	366	385	13.21
6	10/ 9/78	11	34	0.0	9.48	0.081	306	462	14.72
6	10/11/78	13	30	0.0	11.50	0.013	256	481	14.24
6	10/17/78	13	50	0.0	11.14	0.014	314	375	13.14
6	10/25/78	14	45	0.0	10.53	0.025	353	386	13.14
6	10/31/78	11	45	0.0	10.23	0.010	258	363	14.12
6	11/ 7/78	11	45	0.01	9.97	0.021	356	407	37.82
6	11/13/78	9	0	0.07	10.28	0.437	247	260	19.54
6	11/13/78	14	7	0.02	10.93	0.073	227	350	15.87
6	11/13/78	18	52	0.0	11.89	0.025	180	398	14.78
6	11/14/78	8	18	0.01	12.92	0.031	237	354	14.01
6	11/14/78	15	7	0.0	11.98	0.019	261	374	14.01
6	11/17/78	18	6	0.0	12.14	0.059	309	391	14.74
6	11/18/78	3	58	0.0	12.40	0.028	260	366	14.19
6	11/21/78	14	30	0.01	13.20	0.022	268	352	13.70
6	11/29/78	16	0	0.0	11.60	0.023	292	319	13.70
6	12/ 6/78	12	0	0.01	13.77	0.002	238	262	10.03
6	12/14/78	9	20	0.02	11.81	0.008	223	268	9.90
6	12/21/78	12	45	0.01	11.81	0.004	260	296	10.52
6	12/29/78	10	15	0.01	10.78	0.019	263	321	13.54

TABLE F2-23. FOUR MILE CREEK WATERSHED RUNOFF NUTRIENT CONCENTRATION DATA FOR 1978 SITE 7

SITE	DATE	HOUR	MIN	NH4-N	NO3-N	PO4-P	TDS	TDS+SEDT	CL-
				PPM					
7	3/19/78	9	58	2.17	2.27	2.337	136	179	10.88
7	3/19/78	18	8	1.12	1.80	1.245	63	446	8.59
7	3/20/78	9	47	1.66	1.93	1.742	139	212	8.82
7	3/20/78	11	30	1.09	2.00	1.501	138	210	7.20
7	3/20/78	12	30	0.99	1.73	1.372	128	139	6.67
7	3/20/78	13	30	0.95	1.75	1.198	115	149	5.65
7	3/20/78	14	30	0.92	1.71	1.023	89	154	5.59
7	3/20/78	15	30	0.90	1.68	0.898	89	145	6.01
7	3/20/78	16	30	0.97	1.79	0.722	95	150	11.23
7	3/20/78	17	17	0.95	1.97	1.471	121	281	6.46
7	3/20/78	17	30	0.91	1.79	1.026	67	191	12.55
7	3/20/78	18	30	0.91	1.81	1.062	95	208	5.71
7	3/20/78	19	30	0.93	1.86	1.108	97	182	5.81
7	3/20/78	20	30	0.94	1.88	1.154	119	171	6.69
7	3/20/78	21	30	0.93	2.02	1.168	119	167	9.10
7	3/20/78	22	30	0.94	2.11	1.303	115	165	8.36
7	3/20/78	23	30	0.94	2.18	1.246	112	145	6.44
7	3/21/78	1	30	0.94	2.32	1.246	135	155	6.59
7	3/21/78	3	30	0.94	2.16	1.306	121	187	6.86
7	3/21/78	6	30	0.99	2.40	1.212	143	159	7.86
7	3/21/78	8	30	0.87	1.83	0.696	99	126	5.57
7	3/21/78	10	30	1.02	2.38	1.524	138	158	7.87
7	3/21/78	11	30	1.02	2.23	1.483	120	151	5.93
7	3/21/78	12	45	0.99	2.05	1.436	93	168	4.60
7	3/21/78	13	30	1.00	1.76	1.061	101	149	7.24
7	3/21/78	14	30	1.04	1.67	1.200	153	166	5.89
7	3/21/78	15	30	1.07	1.63	1.256	148	178	5.40
7	3/21/78	1	30	1.13	1.67	1.413	147	162	6.14
7	3/21/78	17	30	1.12	1.67	1.529	137	145	5.80
7	3/21/78	18	30	1.10	1.65	1.605	126	137	6.41
7	3/21/78	19	30	1.26	1.95	1.582	37	90	6.03
7	3/21/78	20	30	1.26	2.00	1.582	124	151	6.14
7	3/21/78	21	30	1.23	1.97	1.558	127	129	6.36
7	3/21/78	22	30	1.20	2.03	1.558	107	116	6.60
7	3/21/78	23	30	1.20	2.12	1.512	144	152	6.93
7	3/22/78	0	30	1.12	2.27	1.477	134	166	7.27
7	3/22/78	1	30	1.16	2.20	1.154	134	163	7.64
7	3/22/78	2	30	1.04	2.51	1.042	127	161	8.41
7	3/22/78	14	58	0.99	1.23	0.896	109	111	4.81
7	4/17/78	17	28	2.15	2.39	2.365	179	1089	20.20
7	4/17/78	18	0	1.90	2.29	2.212	168	768	18.08
7	4/17/78	18	30	2.22	2.62	2.217	168	684	18.03
7	4/17/78	23	0	0.71	1.29	1.860	162	4724	9.61
7	4/18/78	7	0	1.05	11.93	1.294	457	781	18.77
7	4/18/78	11	26	1.03	18.40	1.179	326	450	21.33
7	9/20/78	12	33	0.02	3.82	1.057	222	263	11.26
7	9/20/78	13	30	0.07	4.88	1.794	255	283	12.70
7	9/20/78	15	30	0.01	5.10	1.403	233	319	12.66
7	9/20/78	15	45	0.0	16.75	1.082	505	513	18.74
7	9/20/78	16	18	0.02	4.46	1.342	218	240	8.63
7	9/20/78	18	0	0.05	4.10	0.549	220	235	7.66
7	9/20/78	18	29	0.04	5.92	1.319	248	300	10.08
7	9/20/78	19	7	0.03	6.65	1.125	248	308	10.23

TABLE F2-24. FOUR MILE CREEK WATERSHED RUNOFF NUTRIENT CONCENTRATION DATA FOR 1978 SITE 8

SITE	DATE	HOUR	MIN	NH4-N	NO3-N	PO4-P	TDS	TDS+SEDT	CL-
				PPM					
8	3/17/78	12	10	1.44	2.62	0.596	69	146	12.34
8	3/17/78	15	6	1.12	2.84	0.627	76	289	12.81
8	3/18/78	13	10	0.84	2.85	0.418	66	86	10.35
8	3/18/78	18	20	0.68	2.52	0.370	86	161	8.48
8	3/19/78	10	48	0.58	2.84	0.591	40	186	13.70
8	3/19/78	12	38	0.63	2.16	0.500	26	977	11.39
8	3/19/78	15	51	0.54	2.04	1.118	56	395	14.31
8	3/20/78	10	8	0.93	3.64	0.400	180	270	11.28
8	3/20/78	11	18	0.93	3.64	0.391	172	285	12.81
8	3/20/78	12	22	0.77	3.17	0.364	174	324	9.78
8	3/20/78	13	24	2.04	2.73	0.330	155	921	8.18
8	3/20/78	14	58	2.16	2.69	0.799	171	484	18.89
8	3/20/78	15	55	2.81	2.50	1.063	195	728	10.56
8	3/20/78	16	45	2.79	2.98	0.944	188	450	11.70
8	3/20/78	18	20	1.24	3.40	0.673	173	429	9.48
8	3/20/78	20	1	1.49	2.69	0.652	182	310	9.76
8	3/20/78	21	6	1.18	3.23	0.601	163	291	11.36
8	3/20/78	22	15	1.13	3.29	0.480	118	230	9.88
8	3/21/78	8	13	1.41	4.23	0.551	117	197	7.38
8	3/21/78	9	11	0.57	2.92	0.284	88	155	9.61
8	3/21/78	10	10	0.59	2.89	0.314	81	150	9.01
8	3/21/78	11	11	0.53	2.89	0.314	83	226	8.89
8	3/21/78	12	15	0.35	2.12	0.314	82	853	8.54
8	3/21/78	13	35	0.38	2.26	0.621	105	1039	7.42
8	3/21/78	14	47	0.43	2.13	0.302	93	1583	6.15
8	3/21/78	16	20	0.26	1.78	0.216	70	1267	4.98
8	3/21/78	17	16	0.63	2.54	0.388	83	770	5.65
8	3/21/78	17	30	1.03	3.19	0.035	182	277	7.36
8	3/21/78	19	0	0.91	3.73	0.055	183	211	8.33
8	3/21/78	20	0	0.89	4.05	0.024	168	173	10.06
8	3/21/78	21	0	0.67	4.32	0.015	57	127	8.95
8	3/21/78	22	0	0.60	4.26	0.011	62	111	10.35
8	3/21/78	23	0	0.48	4.19	0.011	167	198	9.11
8	3/22/78	0	30	0.37	4.34	0.010	90	199	7.33
8	3/22/78	2	30	0.31	3.84	0.007	58	170	6.48
8	3/22/78	4	30	0.26	3.49	0.007	26	171	6.25
8	3/22/78	6	30	0.26	3.50	0.019	43	358	6.61
8	3/22/78	8	30	0.28	3.42	0.013	49	404	6.82
8	3/22/78	10	30	0.28	3.24	0.021	35	376	7.28
8	3/22/78	12	0	0.56	3.02	0.238	125	169	7.72
8	3/22/78	13	47	0.27	2.43	0.236	93	611	5.19
8	3/22/78	15	12	0.37	2.18	0.282	64	497	4.80
8	3/22/78	16	40	0.38	2.29	0.268	53	332	4.61
8	3/22/78	18	2	0.35	2.72	0.254	59	245	5.11
8	3/22/78	19	2	0.33	2.96	0.245	59	211	4.80
8	3/22/78	19	30	0.38	2.74	0.136	91	124	5.25
8	3/22/78	20	30	0.34	2.79	0.132	51	75	5.15
8	3/22/78	21	30	0.33	3.04	0.013	145	217	5.17
8	3/22/78	22	30	0.37	3.17	0.224	147	216	5.67
8	3/22/78	23	30	0.35	3.33	0.017	126	166	6.10
8	3/23/78	1	30	0.37	3.22	0.090	65	107	6.32
8	3/23/78	2	30	0.36	3.37	0.014	76	73	6.30
8	3/23/78	3	30	0.36	3.43	0.049	31	63	6.43
8	4/ 5/78	18	25	0.15	0.48	0.177	39	118	2.62
8	4/ 5/78	18	42	0.28	1.12	0.317	58	101	3.20
8	4/ 5/78	19	48	0.39	1.67	0.491	85	369	7.26
8	4/ 5/78	20	27	0.71	5.22	0.878	214	574	25.36
8	4/17/78	14	43	0.14	0.51	0.206	18	5506	1.30
8	4/17/78	15	17	0.06	0.51	0.171	19	6068	1.06
8	4/17/78	15	54	0.06	0.60	0.178	0	4920	2.33
8	4/17/78	16	10	0.16	0.91	0.264	54	2823	6.51
8	4/17/78	16	16	0.10	0.80	0.189	23	4742	4.63
8	4/17/78	16	30	0.19	3.94	0.215	129	2718	9.26
8	4/17/78	16	55	0.15	1.14	0.262	43	2467	5.19
8	4/17/78	17	15	0.22	1.61	0.283	62	2208	9.20
8	4/17/78	17	30	0.21	1.46	0.269	68	2198	5.15
8	4/17/78	17	45	0.25	1.75	0.272	80	1942	6.26
8	4/17/78	18	5	0.31	2.27	0.365	115	1247	8.03
8	4/17/78	18	25	0.37	3.79	0.491	153	1245	11.10
8	4/17/78	18	45	0.33	4.33	0.545	134	1477	12.13
8	4/18/78	7	0	0.40	10.03	0.376	212	769	16.58
8	4/18/78	7	20	0.42	10.62	0.376	204	802	19.06
8	4/18/78	7	40	0.41	10.48	0.493	223	432	21.15
8	4/18/78	8	0	0.40	10.74	0.345	211	425	17.22
8	4/18/78	8	20	0.34	10.98	0.730	295	458	21.30
8	4/18/78	8	40	0.37	10.56	1.695	254	400	17.46
8	4/18/78	11	15	0.17	14.34	0.400	352	729	22.76
8	4/18/78	12	15	0.19	14.26	0.340	338	374	23.79
8	4/18/78	15	32	0.12	14.46	0.155	268	659	18.16
8	5/13/78	0	45	0.05	2.88	1.034	178	1165	18.54
8	5/13/78	1	15	0.06	2.61	0.845	166	1093	14.92
8	5/13/78	1	35	0.05	2.03	0.612	151	749	11.66
8	5/13/78	1	55	0.04	1.82	0.457	140	490	10.13
8	5/13/78	2	15	0.04	1.90	0.445	130	704	9.08
8	5/13/78	2	35	0.04	2.35	0.462	161	671	10.29
8	5/13/78	2	55	0.04	1.60	0.408	135	389	7.65
8	5/13/78	3	15	0.04	2.21	0.488	147	361	9.25
8	5/13/78	3	35	0.06	1.43	0.406	109	335	5.73
8	5/27/78	16	30	0.45	6.33	0.123	190	74240	1.98
8	5/27/78	16	35	0.41	6.86	0.125	191	50020	2.57
8	5/27/78	16	40	0.36	8.13	0.096	160	25260	3.46
8	5/27/78	16	45	0.36	10.17	0.104	233	26670	6.17
8	5/27/78	16	50	0.34	8.42	0.095	143	19340	3.54
8	5/27/78	16	55	0.34	8.13	0.097	148	18900	3.47
8	5/27/78	17	0	0.43	8.54	0.100	166	22380	3.68
8	5/27/78	17	5	0.41	9.39	0.127	133	18920	4.03
8	5/27/78	17	10	0.41	9.20	0.123	116	20990	4.39
8	5/27/78	17	15	0.48	8.54	0.117	129	17840	4.31
8	5/27/78	17	20	0.30	8.54	0.104	122	11800	4.83
8	5/27/78	17	30	0.27	7.36	0.104	82	11110	4.15
8	5/27/78	17	40	0.28	6.89	0.138	103	10590	4.64
8	5/27/78	17	50	0.23	8.06	0.114	86	9177	4.51
8	5/27/78	18	5	0.25	7.72	0.136	68	9016	4.49
8	5/27/78	18	15	0.18	7.45	0.131	59	8808	5.57

TABLE F2-24. CONCLUDED

SITE	DATE	HOUR	MIN	NH4-N	NO3-N	PO4-P	TDS	TDS+SEDT	CL-
				PPM					
8	5/27/78	18	30	0.25	7.08	0.115	28	6181	4.88
8	5/27/78	18	45	0.21	7.38	0.109	66	7015	4.78
8	6/15/78	2	28	0.04	5.51	0.130	110	7001	2.84
8	6/15/78	2	45	0.02	6.95	0.126	91	5637	2.96
8	6/15/78	3	0	0.06	4.02	0.095	105	8008	2.91
8	6/15/78	3	15	0.02	3.17	0.222	101	5679	3.52
8	6/15/78	3	30	0.02	3.01	0.206	96	7204	3.09
8	6/15/78	3	45	0.02	3.11	0.162	72	5533	2.83
8	6/15/78	4	0	0.02	3.43	0.153	96	5135	2.86
8	6/15/78	4	15	0.01	3.56	0.109	98	3929	2.34
8	6/15/78	4	30	0.03	3.51	0.098	91	2852	2.32
8	6/20/78	3	6	0.10	4.07	0.095	45	6656	2.17
8	6/20/78	3	16	0.08	4.96	0.101	96	6808	1.82
8	6/20/78	3	26	0.09	5.34	0.096	22	6366	1.99
8	6/20/78	3	43	0.09	5.70	0.082	72	5415	2.24
8	6/20/78	4	0	0.08	6.18	0.090	59	4387	2.24
8	6/20/78	4	15	0.09	6.46	0.072	92	3673	2.39
8	6/20/78	4	40	0.11	6.48	0.078	104	2882	2.83
8	6/20/78	5	0	0.09	6.39	0.061	120	2321	2.96
8	8/26/78	23	0	0.94	9.66	1.975	361	401	21.11
8	8/26/78	23	20	0.09	0.08	0.575	58	78	1.10
8	8/26/78	23	40	0.02	0.80	0.742	48	89	1.31
8	8/26/78	24	0	0.03	0.92	0.960	55	97	2.36
8	8/27/78	0	20	0.02	0.97	0.828	67	94	1.67
8	9/20/78	13	5	0.52	0.58	0.656	79	148	3.77
8	9/20/78	14	30	0.45	0.82	0.674	92	156	4.48
8	9/20/78	17	30	0.36	0.54	0.806	126	151	6.29

TABLE F3- 1. FOUR MILE CREEK WATERSHED TILE NUTRIENT CONCENTRATION DATA FOR 1976

TILE	DATE	HOUR	MIN	NH4-N	NO3-N	PO4-P	TDS	TDS+SEDT	CL-
				PPM					
10	3/16/76	0	0	0.02	5.11	0.016	252	246	4.61
10	3/23/76	15	30	0.02	5.81	0.035	284	288	3.07
10	3/30/76	15	33	0.02	4.65	0.021	263	279	2.55
10	4/ 9/76	16	13	0.02	5.45	0.013	412	282	5.10
10	4/15/76	14	0	0.02	5.24	0.017	248	274	5.66
10	4/19/76	13	44	0.02	8.19	0.014	261	237	4.82
10	4/27/76	17	42	0.02	8.80	0.008	226	265	5.40
10	5/ 4/76	14	45	0.05	8.75	0.021	266	283	5.85
10	5/11/76	17	5	0.04	8.00	0.012	292	286	5.68
10	5/18/76	17	17	0.04	8.20	0.026	295	290	6.44
10	5/24/76	15	40	0.05	7.39	0.031	319	296	4.95
10	6/ 2/76	16	15	0.01	7.65	0.013	305	352	6.34
10	6/ 7/76	17	26	0.02	8.42	0.016	315	295	6.57
10	6/14/76	13	58	0.31	8.70	0.014	323	318	6.04
10	6/21/76	14	10	0.02	8.70	0.005	332	334	6.67
10	6/28/76	17	27	0.0	7.93	0.056	292	288	6.28
10	7/ 6/76	16	0	0.0	7.40	0.016	223	270	5.86
10	7/12/76	13	35	0.0	5.90	0.019	325	253	5.49
10	7/19/76	13	25	0.0	6.70	0.031	319	295	7.01
10	7/26/76	13	10	6.50	5.40		388	439	15.40
10	8/ 2/76	11	40	0.01	5.15	0.056	306	334	11.60
10	8/ 9/76	11	20	0.97	1.40	0.318	344	336	12.14
11	2/10/76	14	0	0.02	6.81	0.040	337		14.56
11	2/19/76	14	0	0.06	5.79	0.061	330	311	13.40
11	2/27/76	13	0	0.34	7.57	0.395	309	479	16.16
11	2/28/76	15	30	0.08	8.21	0.133	280	331	16.91
11	3/ 3/76	14	0	0.07	7.77	0.037	291	330	14.98
11	3/ 9/76	15	50	0.81	5.03	0.793	239	408	12.85
11	3/10/76	16	29	0.22	8.03	0.244	256	404	15.07
11	3/16/76	16	30	0.02	8.00	0.037	320	345	14.83
11	3/23/76	15	40	0.02	8.89	0.030	341	339	8.30
11	3/30/76	15	37	0.01	9.39	0.045	316	321	8.87
11	4/ 9/76	16	17	0.03	7.68	0.028	249	314	14.32
11	4/15/76	14	2	0.02	7.47	0.035	322	322	14.81
11	4/19/76	13	38	0.19	10.81	0.058	317	308	15.55
11	4/27/76	17	45	0.08	11.73	0.026	298	315	16.77
11	5/ 4/76	14	40	0.04	7.11	0.815	248	245	11.08
11	5/11/76	17	30	0.04	6.82	0.024	261	278	10.71
11	5/18/76	17	22	0.03	7.39	0.025	274	266	
11	5/24/76	16	25	0.04	6.05	0.030	310	267	10.34
11	6/ 2/76	18	20	0.01	7.42	0.021	300	322	10.51
11	6/ 7/76	17	52	0.02	7.19	0.021	294	282	10.90
11	6/14/76	13	26	0.05	8.76	0.052	299	310	10.50
11	6/21/76	14	25	0.09	7.64	0.010	306	320	10.87
11	6/28/76	17	30	0.0	7.42	0.028	301	294	9.80
11	7/ 6/76	14	7	0.0	7.00	0.087	197	269	9.15
11	7/12/76	13	50	0.0	6.80	0.020	309	285	8.57
11	7/19/76	13	10	0.07	6.60	0.035	282	283	12.09
11	7/26/76	11	30	0.80	6.60	0.039	269	282	8.73
11	8/ 2/76	11	25	0.0	5.56	0.038	286	246	12.30
11	8/ 9/76	11	0	0.0	5.40	0.067	251	216	5.82
11	8/16/76	11	37	0.0	3.88	0.074	274	251	5.74
12	2/10/76	14	0	0.02	4.20	0.037	266		5.14
12	2/19/76	14	0	0.09	3.66	0.056	266	245	5.08
12	2/28/76	15	30	0.10	5.76	0.196	267	471	8.78
12	3/ 3/76	14	0	0.06	3.55	0.026	222	232	5.85
12	3/10/76	16	28	0.07	4.90	0.038	149	394	9.50
12	3/16/76	16	30	0.02	3.76	0.019	224	232	7.08
12	3/23/76	15	40	0.03	4.29	0.017	256	256	7.00
12	3/30/76	15	37	0.02	4.89	0.031	207	254	3.78
12	4/ 9/76	16	17	0.03	4.47	0.026	190	233	6.66
12	4/15/76	14	2	0.02	5.07	0.020	246	246	6.45
12	4/19/76	13	38	0.55	10.08	0.022	266	221	9.02
12	4/27/76	17	45	0.19	7.03	0.023	226	242	10.93
12	5/ 4/76	14	40	0.04	10.98	0.020	329	334	17.67
12	5/11/76	17	30	0.03	10.75	0.023	349	332	17.06
12	5/18/76	17	22	0.02	11.23	0.034	352	323	
12	5/24/76	16	25	0.06	9.92	0.031	400	322	14.87
12	6/ 2/76	18	20	0.01	9.39	0.025	350	363	13.53
12	6/ 7/76	17	52	0.02	10.81	0.019	323	343	14.17
12	6/14/76	13	26	0.0	10.54	0.069	387	337	14.74
12	6/21/76	14	25	0.0	9.90	0.011	365	365	13.64
12	6/28/76	17	30	0.0	9.62	0.139	312	316	11.96
12	7/ 6/76	14	7	0.0	9.10	0.040	267	299	11.08
12	7/12/76	13	50	0.0	8.00	0.033	323	301	10.66
12	7/19/76	13	10	0.0	8.00	0.046	306	301	11.83
12	7/26/76	11	30	0.01	8.00	0.047	288	308	11.74
12	8/ 2/76	11	25	0.0	7.10	0.070	307	263	14.50
12	8/ 9/76	11	0	0.0	9.83	0.045	286	256	16.70
12	8/16/76	11	37	0.0	7.63	0.040	272	278	13.92
13	3/30/76	15	45	0.43	9.55	0.169	335	404	7.99
13	4/ 9/76	16	25	0.02	14.72	0.015	400	343	19.64
13	4/15/76	14	30	0.04	13.80	0.083	366	366	20.79
13	4/19/76	13	30	0.15	12.80	0.026	370	308	14.94
13	4/27/76	18	15	0.03	13.77	0.044	345	332	14.84
13	5/ 4/76	14	30	0.05	14.15	0.036	343	321	16.02
13	5/11/76	17	35						
13	5/18/76	17	21	0.03	14.43	0.029	325	372	
13	5/24/76	15	55	0.10	15.06	0.069	457	345	19.91
13	6/ 2/76	18	32	0.01	14.08	0.020	349	408	17.37
13	6/ 7/76	18	5	0.03	14.74	0.027	362	356	17.60
13	6/14/76	13	18	0.0	14.44	0.057	485	374	15.98
13	6/21/76	15	0	0.12	14.62	0.066	394	393	18.86
13	6/28/76	18	3	0.0	17.11	0.025	348	374	18.82
13	7/ 6/76	16	20	0.03	17.00	0.081	293	351	19.04
13	7/12/76	13	25	0.0	15.20	0.017	378	349	18.89
13	7/19/76	15	15	0.01	15.30	0.010	355	330	18.10
13	7/26/76	11	15	0.0	10.00	0.019	267	275	11.74

TABLE F3- 1. CONCLUDED

SITE	DATE	HOUR	MIN	NH4-N	NO3-N	PO4-P	TDS	TDS+SEDT	CL-
				PPM					
14	3/16/76	0	0	0.05	7.97	0.052	351	358	15.20
14	3/23/76	16	50	0.07	8.09	0.066	370	394	6.55
14	3/30/76	15	45	0.45	7.68	0.213	533	409	7.21
14	4/ 9/76	16	25	0.04	7.86	0.053	357	339	13.24
14	4/15/76	14	30	0.61	6.43	0.463	387	387	42.20
14	4/19/76	13	30	0.30	11.61	0.053	352	337	13.26
14	4/27/76	18	15	0.03	12.28	0.041	324	336	13.19
14	5/ 4/76	14	30	0.09	12.33	0.042	299	343	14.35
14	5/11/76	17	35	0.04	12.11	0.034	360	378	13.78
14	5/18/76	17	27	0.05	11.45	0.035	346	370	
14	5/24/76	15	55	0.17	12.05	0.150	413	374	16.76
14	6/ 2/76	18	32	0.04	10.88	0.048	395	437	14.53
14	6/ 7/76	18	5	0.04	11.15	0.071	378	368	14.24
14	6/14/76	13	18	0.01	13.70	0.080	359	368	14.29
14	6/21/76	15	0	0.16	12.38	0.192	395	432	19.76
14	6/28/76	18	3	0.0	13.10	0.136	343	365	15.30
14	7/ 6/76	16	20	0.43	12.40	0.673	326	395	13.71
14	7/12/76	13	25	1.03	10.60	0.585	374	386	13.83
14	7/19/76	15	15	0.02	9.70	0.120	351	350	16.48
14	7/26/76	11	15	0.0	7.50	0.110	341	352	8.34
14	8/ 2/76	13	40	0.0	4.50	0.110	373	313	11.20
15	3/30/76	15	45	0.18	6.56	0.100	295	372	9.89
15	4/ 9/76	16	25	0.05	5.70	0.050	329	320	14.76
15	4/15/76	14	30	0.12	6.08	0.084	278	323	15.95
15	4/19/76	13	30	0.06	9.58	0.047	338	281	12.42
15	4/27/76	18	15	0.12	10.22	0.041	260	296	11.38
15	5/ 4/76	14	30	0.05	9.70	0.041	253	300	11.23
15	5/11/76	17	35	0.03	9.93	0.039	320	322	10.83
15	5/18/76	17	27	0.03	8.78	0.064	298	316	
15	5/24/76	15	55	0.31	9.48	0.088	359	320	10.76
15	6/ 2/76	18	32	0.09	8.90	0.057	327	362	10.07
15	6/ 7/76	18	5	0.06	8.44	0.064	361	314	13.67
15	6/14/76	13	18	0.01	11.39	0.080	314	328	11.25
15	6/21/76	15	0	0.0	9.40	0.040	337	487	11.31
15	6/28/76	18	3	0.05	9.20	0.064	313	320	16.17
15	7/ 6/76	16	20	0.0	8.70	0.273	278	308	13.30
15	7/12/76	13	25	0.0	7.80	0.080	386	346	19.93
15	7/19/76	15	15	0.0	9.40	0.145	342	341	19.37
15	7/26/76	11	15	0.0	10.50	0.110	358	373	13.13
15	8/ 2/76	13	40	0.02	12.29	0.089	141	395	27.20
15	8/ 9/76	10	55	0.0	10.58	0.351	404	387	18.53
16	3/16/76	0	0	0.02	10.36	0.051	402	409	20.82
16	3/23/76	17	0	0.02	11.42	0.036	440	468	12.93
16	3/30/76	15	55	0.03	8.89	0.082	401	459	22.68
16	4/ 9/76	16	35	0.03	11.88	0.027	422	474	45.56
16	4/15/76	14	38	0.03	10.00	0.059	414	481	45.07
16	4/19/76	13	20	0.31	17.18	0.061	416	416	51.01
16	4/27/76	9	15	0.03	17.02	0.049	350	373	40.32
16	5/ 4/76	14	20	0.08	16.67	0.036	360	415	39.94
16	5/11/76	17	43	0.02	18.29	0.023	434	414	23.01
16	5/18/76	17	35	0.03	17.25	0.039	424	470	
16	5/24/76	16	0	0.05	18.13	0.050	496	529	36.48
16	6/ 2/76	18	40	0.01	17.18	0.023	430	461	20.54
16	6/ 7/76	18	20	0.0	18.17	0.026	456	421	19.77
16	6/14/76	10	20	0.0	19.71	0.080	445	447	42.58
16	6/21/76	15	24	0.0	18.05	0.017	511	447	20.01
16	6/28/76	18	12	0.0	19.66	0.045	386	436	20.13
16	7/ 6/76	16	45						
16	7/12/76	13	5	0.0	17.40	0.057	446	507	20.52
16	7/19/76	15	35	0.01	21.90	0.064	584	728	45.25
17	3/16/76	0	0	0.02	9.83	0.037	319	323	14.18
17	3/23/76	17	0	0.01	9.77	0.025	354	371	5.77
17	3/30/76	15	55	0.01	9.45	0.034	299	326	13.02
17	4/ 9/76	16	35	0.02	10.10	0.021	322	313	13.19
17	4/15/76	14	38	0.03	9.61	0.025	244	312	14.46
17	4/27/76		15	0.03	14.23	0.024	295	333	15.78
17	5/ 4/76	14	20	0.05	14.72	0.018	327	371	16.01
17	5/11/76	17	43	0.04	15.85	0.016	379	381	15.75
17	5/18/76	17	35	0.02	15.00	0.029	349	392	
17	5/24/76	16	0	0.02	15.72	0.017	407	450	15.98
17	6/ 2/76	18	40	0.01	15.68	0.015	393	341	15.00
17	6/ 7/76	18	20	0.0	15.61	0.020	380	338	15.45
17	6/14/76	10	20	0.0	17.55	0.026	365	385	15.04
17	6/21/76	15	24	0.0	16.23	0.038	429	409	15.77
17	6/28/76	18	12	0.0	16.54	0.055	336	360	15.47
17	7/ 6/76	16	45	0.06	15.70	0.210	366	357	15.79
17	7/12/76	13	5						
17	7/19/76	15	35	0.0	14.40	0.035	358	272	18.40
17	7/26/76	11	45	0.02	11.40	0.036	279	310	13.17
17	8/ 2/76	14	0	0.0	7.20	0.023	251	250	17.50

TABLE F3- 2. FOUR MILE CREEK WATERSHED TILE NUTRIENT CONCENTRATION DATA FOR 1977

TILE	DATE	HOUR	MIN	NH4-N	NO3-N	PO4-P	TDS	TDS+SEDT	CL-
				PPM					
10	8/28/77	6	55	0.0	12.00	0.064	305	318	7.68
10	9/20/77	16	0	0.0	6.53	0.021	350	365	3.75
10	9/27/77	16	21	0.12	7.95	0.065	361	318	9.36
10	10/ 4/77	13	25	0.01	6.78	0.019	359	339	5.05
10	10/11/77	14	25	0.14	8.23	0.037	343	355	7.44
10	10/18/77	14	0	0.0	7.83	0.019	419	409	4.78
10	10/25/77	13	0	0.08	10.14	0.020	368	367	5.80
10	11/ 1/77	13	50	0.01	9.50	0.018	297	316	6.29
10	11/ 8/77	13	0	0.0	9.06	0.016	327	303	7.27
10	11/14/77	14	0	0.03	7.86	0.021	93	354	7.27
10	11/21/77	12	40	0.01	7.42	0.021	329	349	7.27
10	11/30/77	13	10	0.02	7.59	0.032	256	306	7.51
11	4/21/77	8	10	0.07	14.36	0.035	231	264	12.66
11	6/17/77	14	28	0.38	16.43	0.064	190	8704	7.52
11	6/17/77	15	21	0.05	3.35	0.007	148	2827	3.42
11	6/17/77	15	28	0.81	21.94	0.030	327	992	9.13
11	7/ 6/77	10	30	0.02	5.45	0.026	92	2034	3.12
11	7/ 6/77	10	35	0.01	3.82	0.020	94	1647	2.27
11	7/ 6/77	10	45	0.02	3.85	0.023	103	1321	2.36
11	7/ 6/77	10	50	0.03	3.82	0.043	111	1172	2.49
11	7/ 6/77	11	0	0.01	4.55	0.011	111	912	2.44
11	7/ 6/77	11	10	0.12	4.74	0.009	125	783	2.57
11	7/ 6/77	11	20	0.05	4.83	0.016	127	663	2.66
11	7/28/77	17	55	2.46	11.11	2.205	133	424	2.10
11	7/28/77	18	0	1.97	0.16	2.460	162	222	3.43
11	7/28/77	18	5	2.33	0.07	2.410	145	217	2.46
11	7/28/77	18	10	0.22	1.50	0.091	51	10990	2.48
11	7/28/77	18	15	0.21	1.36	0.094	62	10350	2.04
11	7/28/77	18	20	1.52	0.05	2.512	160	226	3.74
11	7/28/77	18	25	0.15	2.59	0.080	74	5549	2.31
11	8/ 1/77	21	5	0.04	4.93	0.095	65	469	3.88
11	8/ 1/77	21	15	0.03	6.12	0.077	142	327	2.92
11	8/ 1/77	21	25	0.0	6.12	0.073	155	300	3.32
11	8/ 1/77	21	45	0.05	7.62	0.068	194	217	3.20
11	8/ 1/77	22	5	0.02	6.91	0.055	180	222	3.31
11	8/ 5/77	16	53	0.04	9.49	0.045	277	268	3.11
11	8/ 8/77	9	42	0.0	13.84	0.041	301	273	3.08
11	8/16/77	18	30	0.06	10.77	0.073	301	310	5.47
11	8/28/77	6	55	0.01	14.94	0.036	293	320	6.90
11	8/29/77	11	30	0.0	10.77	0.033	298	315	5.44
11	9/ 2/77	9	11	0.0	10.71	0.034	307	330	6.41
11	9/ 7/77	9	54	0.0	6.53	0.037	303	305	5.61
11	9/20/77	11	26	0.0	11.43	0.033	354	363	9.29
11	9/27/77	16	15	0.15	10.66	0.072	356	396	12.75
11	10/ 4/77	12	15	0.0	10.87	0.034	355	339	7.98
11	10/11/77	12	0	0.09	14.72	0.047	357	361	11.56
11	10/18/77	12	30	0.0	11.96	0.049	417	421	7.97
11	10/25/77	11	10	0.11	18.24	0.049	371	383	11.52
11	11/ 1/77	11	55	0.10	18.33	0.030	317	325	10.69
11	11/ 8/77	11	30	0.05	15.20	0.030	378	360	10.81
11	11/14/77	12	17	0.05	14.76	0.114	366	340	11.52
11	11/21/77	11	45	0.01	16.54	0.040	308	343	11.28
11	11/30/77	13	0	0.0	15.57	0.029	110	280	9.06
12	3/29/77	13	0	0.04	11.55	0.057	272	274	19.21
12	4/ 6/77	12	30	0.03	12.84	0.039	272	284	19.69
12	4/13/77	14	40	0.01	9.88	0.040	252	270	13.04
12	4/21/77	8	10	0.06	16.44	0.045	262	274	14.38
12	5/ 4/77	17	25	0.03	8.49	0.040	238	245	15.14
12	8/16/77	18	30	0.05	12.79	0.134	316	330	7.81
12	8/29/77	11	31	0.0	10.77	0.038	318	327	8.27
12	9/ 2/77	9	12	0.0	8.92	0.037	319	318	8.96
12	9/ 7/77	9	55	0.0	6.86	0.041	318	321	9.05
12	9/20/77	11	26	0.0	12.50	0.044	320	386	11.21
12	9/27/77	16	15	0.12	10.88	0.066	334	325	12.46
12	10/ 4/77	12	15	0.0	10.87	0.043	333	360	10.32
12	10/11/77	12	0	0.03	16.29	0.043	425	437	14.05
12	10/18/77	12	30	0.0	13.60	0.051	450	462	13.63
12	10/25/77	11	10	0.06	23.46	0.041	392	436	19.01
12	11/ 1/77	11	55	0.04	20.49	0.042	365	373	17.85
12	11/ 8/77	11	30	0.0	19.21	0.051	336	405	16.57
12	11/14/77	12	17	0.02	20.04	0.093	386	375	15.67
12	11/21/77	11	45	0.0	18.98	0.040	366	340	15.01
12	11/30/77	13	0	0.03	18.70	0.049	322	324	16.23
13	10/11/77	11	45	0.05	14.00	0.041	371	354	16.18
13	10/18/77	12	15	0.0	18.73	0.101	525	531	11.47
13	10/25/77	10	55	0.02	24.21	0.087	399	484	14.85
13	11/ 1/77	11	45	0.0	20.66	0.089	397	408	27.51
13	11/ 8/77	11	15	0.0	25.58	0.031	400	400	26.17
13	11/14/77	12	5	0.02	28.31	0.035	397	429	25.63
13	11/21/77	11	35	0.01	23.89	0.032	298	535	24.71
13	11/30/77	14	15	0.06	23.16	0.026	371	418	15.46
14	4/21/77	9	42	0.0	12.10	0.073	294	331	12.86
14	8/16/77	18	40	0.03	14.84	0.247	425	399	10.06
14	8/29/77	11	0	0.0	9.86	0.122	414	417	9.88
14	9/ 2/77	8	57	0.0	7.94	0.108	413	427	11.18
14	9/20/77	16	10	0.0	15.78	0.125	473	492	13.24
14	9/27/77	16	30	0.20	12.81	0.117	484	438	14.59
14	10/ 4/77	12	5	0.0	15.56	0.099	463	476	13.39
14	10/11/77	11	45	0.0	18.42	0.202	349	358	19.05
14	10/18/77	12	15	0.0	16.35	0.072	607	609	18.50
14	10/25/77	10	55	0.34	23.26	0.389	426	581	35.33
14	11/ 1/77	11	45	0.16	23.71	0.238	467	477	33.86
14	11/ 8/77	11	15	0.62	19.49	0.296	461	482	36.23
14	11/14/77	12	5	1.15	19.49	0.867	535	600	98.66
14	11/21/77	11	35	0.06	17.29	0.211	399	433	29.58
14	11/30/77	14	15	0.52	17.45	0.307	442	472	50.74

TABLE F3- 2. CONCLUDED

SITE	DATE	HOUR	MIN	NH4-N	NO3-N	PO4-P	TDS	TDS+SEDT	CL-
				PPM					
15	3/29/77	13	0	0.47	16.50	0.253	489	496	64.81
15	4/ 6/77	13	0	0.53	11.08	0.241	472	481	31.10
15	4/21/77	9	42	0.43	11.23	0.271	450	493	43.75
15	8/16/77	18	40	0.13	13.16	0.267	562	506	39.14
15	8/29/77	11	1	0.19	9.55	0.301	657	629	97.78
15	9/ 2/77	8	58	0.0	6.81	0.332	540	568	62.42
15	9/ 7/77	9	35	0.0	5.67	0.701	807	841	69.69
15	9/20/77	16	10	0.09	13.31	0.290		600	50.50
15	9/27/77	16	30	0.23	11.00	0.273	532	664	38.97
15	10/ 4/77	12	5	0.17	13.02	0.302	601	624	69.19
15	10/11/77	11	45	0.04	17.77	0.252	668	700	81.74
15	10/18/77	12	15	0.0	16.32	0.362	926	996	180.80
15	10/25/77	10	55	0.06	24.17	0.181	409	524	35.33
15	11/ 1/77	11	45	0.01	20.98	0.145	438	446	32.41
15	11/ 8/77	11	15	0.0	18.94	0.127	429	431	30.84
15	11/14/77	12	5	0.19	18.40	0.118	397	448	31.84
15	11/21/77	11	35	0.02	17.83	0.114	359	440	26.84
15	11/30/77	14	15	0.05	17.06	0.161	369	403	32.98
16	10/18/77	11	20	0.0	18.11	0.101	863	950	66.45
16	10/25/77	10	20	0.01	29.64	0.222	448	645	41.93
16	11/ 1/77	11	4	0.0	30.55	0.152	557	597	42.24
16	11/ 8/77	10	45	0.0	34.20	0.174	496	623	46.44
16	11/14/77	11	45	0.0	29.82	0.079	516	1031	56.72
17	10/18/77	11	25	0.0	31.92	0.069	584	742	21.62
17	10/25/77	10	20	0.0	35.61	0.067	389	523	30.00
17	11/ 1/77	11	5	0.0	32.83	0.061	465	472	26.97
17	11/ 8/77	10	45	0.0	31.65	0.069	376	473	21.63
18	10/25/77	11	55	0.03	9.22	0.037	372	412	7.77
18	11/ 1/77	13	0	0.02	7.34	0.035	328	342	5.29
18	11/ 8/77	12	30	0.02	6.81	0.032	312	332	5.03
18	11/14/77	13	0	0.0	7.29	0.021	364	332	6.23
19	10/11/77	12	25	0.03	18.17	0.024	411	429	14.55
19	10/18/77	12	40	0.0	16.13	0.025	515	506	16.18
19	10/25/77	11	48	0.0	21.23	0.016	364	475	28.89
19	11/ 1/77	12	30	0.0	20.64	0.014	408	410	24.84
19	11/ 8/77	11	35	0.0	19.22	0.019	321	362	18.05
19	11/14/77	12	51	0.0	17.76	0.040	366	347	24.84
19	11/21/77	12	0	0.02	16.26	0.023	278	317	19.90
19	11/30/77	12	30	0.04	15.57	0.034	274	366	22.13

TABLE F3- 3. FOUR MILE CREEK WATERSHED TILE NUTRIENT CONCENTRATION DATA FOR 1978

TILE	DATE	HOUR	MIN	NH4-N	NO3-N	PO4-P	TDS	TDS+SEDT	CL-
				PPM					
10	1/24/78	12	0	0.0	8.11	0.019	372	500	13.30
10	3/17/78	15	0	0.03	5.81	0.190	231	279	5.24
10	3/24/78	11	35	0.08	9.21	0.064	230	262	7.01
10	3/27/78	14	52	0.15	8.72	0.125	285	288	8.32
10	4/ 3/78	12	20	0.0	8.70	0.074	203	269	9.24
10	4/ 6/78	15	28	0.0	8.81	0.024	240	306	8.40
10	4/12/78	14	50	0.0	11.45	0.031	183	210	9.34
10	4/18/78	15	20	0.0	13.20	0.019	56	250	8.96
10	4/24/78	12	4	0.10	14.50	0.045	277	273	12.32
10	5/ 2/78	14	50	0.0	11.97	0.010	282	286	8.80
10	5/ 8/78	15	10	0.0	12.43	0.017	280	300	11.66
10	5/15/78	13	15	0.0	14.23	0.011	334	359	9.79
10	5/22/78	19	20	0.0	14.29	0.011	329	369	9.55
10	5/28/78	10	57	0.0	14.88	0.007	287	331	9.18
10	6/ 1/78	13	12	0.0	15.45	0.012	258	308	9.47
10	6/ 7/78	12	24	0.0	14.27	0.021	279	300	10.34
10	6/14/78	16	8	0.0	15.46	0.012	348	362	6.94
10	6/15/78	16	45	0.0	14.00	0.013	341	335	8.43
10	6/20/78	15	40	0.08	16.17	0.015	141	312	9.63
10	6/27/78	10	52	0.0	16.65	0.010	330	409	10.38
10	7/ 3/78	14	50	0.0	15.87	0.014	272	304	10.51
10	7/12/78	14	5	0.02	14.03	0.009	308	315	10.41
10	7/18/78	16	40	0.0	13.26	0.100	420	539	20.44
10	7/26/78	15	0	0.0	11.86	0.010	305	354	10.52
10	8/ 2/78	13	13	0.0	9.67	0.016	306	343	9.76
10	8/ 8/78	15	1	0.0	8.70	0.014	287	385	11.67
10	8/14/78	14	25	0.0	6.30	0.014	276	337	12.64
10	8/27/78	15	35	0.15	8.24	0.025	274	288	7.73
10	8/31/78	15	0	0.0	7.31	0.021	307	415	12.67
10	9/14/78	14	31	0.0	7.42	0.034	244	348	6.60
10	9/19/78	15	5	0.0	7.44	0.031	285	352	7.48
10	9/20/78	17	2	0.0	11.02	0.047	312	328	6.65
10	9/27/78	13	37	0.0	9.31	0.058	337	340	7.38
10	10/ 3/78	14	20	0.0	8.94	0.015	327	349	7.62
10	10/ 9/78	12	30	0.0	8.42	0.012	329	340	7.73
10	10/17/78	13	40	0.0	8.21	0.015	324	348	8.24
10	10/25/78	17	0	0.0	7.47	0.014	334	343	8.24
10	10/31/78	11	30	0.04	7.88	0.016	282	346	8.29
10	11/ 7/78	11	25	0.06	7.57	0.013	291	341	8.28
10	11/14/78	15	22	0.0	7.78	0.011	243	312	6.77
10	11/21/78	14	45	0.01	11.90	0.007	225	287	8.53
10	11/29/78	16	0	0.0	11.92	0.011	259	294	8.42
10	12/ 6/78	11	30	0.01	10.02	0.0	218	244	7.89
10	12/14/78	9	30	0.0	9.00	0.005	221	225	7.54
10	12/21/78	12	36	0.0	10.50	0.007	257	294	8.64
10	12/29/78	10	20	0.01	9.52	0.008	253	284	11.67
11	1/ 5/78	11	45	0.06	15.81	0.031	133	212	12.62
11	1/13/78	11	15	0.0	15.95	0.008	316	393	15.12
11	1/24/78	12	15	0.09	15.87	0.081	91	469	16.92
11	2/ 3/78	13	15	0.20	12.58	0.074	247	315	16.42
11	2/16/78	12	50	0.04	13.76	0.020	207	303	7.86
11	2/28/78	12	0	0.0	12.72	0.009	310	340	8.45
11	3/ 9/78	11	30	0.0	12.24	0.019	301	317	8.71
11	3/17/78	12	2	0.18	7.56	0.603	196	257	13.73
11	3/20/78	10	10	0.08	6.30	0.130	207	243	9.76
11	3/22/78	12	0	0.0	8.47	0.052	107	183	10.67
11	3/24/78	11	39	0.0	9.22	0.011	273	287	12.00
11	3/27/78	11	56	0.0	9.32	0.013	296	306	12.87
11	4/ 3/78	12	0	0.0	9.87	0.066	164	246	12.21
11	4/ 6/78	15	30	0.0	11.81	0.020	315	321	12.24
11	4/12/78	14	45	0.0	15.25	0.047	128	226	13.28
11	4/18/78	15	30	0.0	16.43	0.034	231	275	15.84
11	4/24/78	11	50	0.01	16.92	0.038	207	259	15.80
11	5/ 2/78	14	40	0.0	15.45	0.016	267	294	15.75
11	5/ 8/78	15	20	0.0	15.37	0.025	290	313	16.29
11	5/15/78	13	7	0.0	16.19	0.017	340	388	15.44
11	5/22/78	19	15	0.0	13.31	0.027	315	346	14.17
11	5/28/78	11	24	0.0	17.14	0.022	270	350	14.99
11	6/ 1/78	12	8	0.0	17.90	0.021	224	306	15.98
11	6/ 7/78	12	10	0.0	14.40	0.037	261	307	15.08
11	6/14/78	11	40	0.0	15.05	0.025	295	350	11.22
11	6/15/78	16	50	0.0	16.00	0.026	284	293	11.32
11	6/20/78	14	50	0.02	16.41	0.027	288	326	11.93
11	6/27/78	10	0	0.0	14.31	0.023	335	375	11.98
11	7/ 3/78	14	40	0.0	14.31	0.038	286	287	11.73
11	7/12/78	9	10	0.0	8.88	0.012	289	319	9.56
11	7/18/78	15	12	0.0	11.22	0.026	297	327	11.36
11	7/26/78	14	50	0.0	12.28	0.029	298	347	11.07
11	8/ 2/78	11	4	0.0	12.97	0.032	276	299	10.38
11	8/ 8/78	14	52	0.0	18.20	0.028	264	367	7.86
11	8/14/78	11	54	0.0	18.34	0.013	226	378	7.61
11	8/21/78	16	30	0.0	18.86	0.034	294	389	7.30
11	8/27/78	14	15	0.0	9.77	0.056	285	338	8.81
11	8/31/78	15	15	0.0	17.26	0.039	337	397	6.97
11	9/ 7/78	14	30	0.0	16.85	0.057	322	398	6.49
11	9/14/78	14	3	0.0	7.31	0.048	286	361	8.81
11	9/19/78	15	30	0.0	7.98	0.039	288	359	11.32
11	9/20/78	13	10	0.0	14.53	0.063	320	356	10.96
11	9/27/78	12	45	0.0	11.26	0.069	329	349	11.43
11	10/ 3/78	11	45	0.0	9.43	0.063	329	338	11.14
11	10/ 9/78	13	45	0.0	9.96	0.027	327	358	11.49
11	10/17/78	12	20	0.0	9.67	0.029	337	354	12.46
11	10/25/78	11	40	0.0	9.90	0.029	316	327	12.60
11	10/31/78	11	20	0.02	9.57	0.033	284	348	11.67
11	11/ 7/78	11	25	0.02	9.88	0.029	281	333	11.25
11	11/14/78	15	30	0.0	11.17	0.029	240	294	12.64
11	11/21/78	15	0	0.0	13.11	0.024	306	316	12.74
11	11/29/78	16	0	0.0	12.00	0.022	270	279	12.91
11	12/ 6/78	11	0	0.0	12.27	0.0	223	234	10.06
11	12/14/78	9	54	0.0	12.27	0.010	229	241	10.06
11	12/21/78	11	58	0.0	9.14	0.021	276	391	9.94
11	12/29/78	10	0	0.0	11.34	0.020	274	279	8.91

TABLE F3- 3. CONTINUED

SITE	DATE	HOUR	MIN	NH4-N	NO3-N	PO4-P	TDS	TDS+SEDT	CL-
				ppm					
12	1/ 5/78	11	45	0.02	20.41	0.037	266	293	19.68
12	1/13/78	11	15	0.01	19.22	0.039	307	453	23.04
12	1/24/78	12	15	0.0	17.14	0.057	379	561	20.95
12	2/ 3/78	13	15	0.05	17.45	0.016	267	369	21.68
12	2/16/78	12	50	0.01	13.67	0.036	326	342	22.40
12	2/28/78	12	0	0.04	12.82	0.018	342	376	23.88
12	3/ 9/78	11	30	0.0	14.27	0.033	327	353	16.58
12	3/17/78	12	5	1.10	11.37	0.548	415	419	27.55
12	3/19/78	15	54	2.51	9.65	1.102	240	378	26.64
12	3/20/78	10	18	1.43	7.87	0.488	191	255	16.23
12	3/22/78	12	0	0.43	8.11	0.217	199	292	12.32
12	3/24/78	11	39	0.05	11.62	0.051	303	336	16.99
12	3/27/78	11	56	0.03	11.20	0.034	329	331	17.06
12	4/ 3/78	12	0	0.0	14.11	0.044	272	302	22.13
12	4/ 6/78	15	30	0.0	15.48	0.040	378	389	22.84
12	4/12/78	14	45	0.0	16.71	0.057	255	317	22.87
12	4/18/78	15	30	0.03	19.89	0.069	213	328	18.86
12	4/24/78	11	50	0.04	19.05	0.075	272	336	18.86
12	5/ 2/78	14	40	0.0	16.72	0.020	306	313	16.96
12	5/ 8/78	15	20	0.0	19.15	0.031	339	389	20.84
12	5/15/78	13	7	0.0	20.00	0.021	391	411	20.67
12	5/22/78	19	15	0.0	19.34	0.019	396	508	19.94
12	5/28/78	11	25	0.0	19.16	0.029	328	425	20.50
12	6/ 1/78	12	8	0.0	21.36	0.030	318	361	21.15
12	6/ 7/78	12	10	0.0	17.65	0.046	375	385	20.01
12	6/14/78	11	40	0.0	19.85	0.031	341	359	12.89
12	6/15/78	16	50	0.0	18.77	0.031	317	351	13.06
12	6/20/78	14	50	0.05	18.42	0.034	267	366	13.73
12	6/27/78	10	0	0.0	17.37	0.016	408	500	13.73
12	7/ 3/78	14	40	0.0	17.30	0.030	347	375	13.84
12	7/12/78	9	10	0.0	10.80	0.017	353	384	11.96
12	7/18/78	15	12	0.0	12.92	0.034	340	365	15.49
12	7/26/78	14	50	0.0	13.07	0.039	367	380	16.98
12	8/ 2/78	11	5	0.0	13.71	0.042	303	345	17.01
12	8/ 8/78	14	54	0.0	16.00	0.045	304	412	18.01
12	8/14/78	11	56	0.0	19.06	0.039	291	416	19.03
12	8/21/78	16	30	0.0	17.54	0.063	27	468	28.33
12	8/27/78	14	15	0.0	7.37	0.069	344	411	15.36
12	8/31/78	15	15	0.0	13.28	0.066	347	413	17.21
12	9/ 7/78	14	30	0.0	16.21	0.065	407	427	17.79
12	9/14/78	14	4	0.0	8.93	0.049	378	424	17.98
12	9/19/78	15	30	0.0	8.61	0.046	369	388	17.44
12	9/20/78	13	10	0.0	10.70	0.126	408	416	18.72
12	9/27/78	12	45	0.0	11.56	0.067	384	396	19.79
12	10/ 3/78	11	45	0.0	10.43	0.094	373	393	18.85
12	10/ 9/78	13	48	0.0	10.41	0.031	371	393	20.38
12	10/17/78	12	20	0.0	1.43	0.034	384	416	13.47
12	10/25/78	11	40	0.0	1.07	0.036	394	400	16.02
12	10/31/78	11	20	0.01	10.59	0.035	318	381	18.62
12	11/ 7/78	11	25	0.01	9.74	0.040	358	401	18.66
12	11/14/78	15	30	0.0	11.42	0.034	337	349	21.18
12	11/21/78	15	0	0.0	13.98	0.032	346	351	20.98
12	11/29/78	16	0	0.0	13.21	0.031	324	325	19.96
12	12/ 6/78	11	0	0.0	11.59	0.007	247	269	12.70
12	12/14/78	9	54	0.01	11.96	0.003	272	280	12.80
12	12/21/78	11	58	0.0	12.82	0.023	294	301	12.82
12	12/29/78	10	0	0.0	8.44	0.019	288	295	12.46
13	1/ 5/78	12	0	0.03	24.39	0.019	174	253	22.70
13	1/13/78	11	0	0.0	22.16	0.017	329	429	19.75
13	1/24/78	11	50	0.0	18.07	0.021	349	494	17.28
13	2/28/78	11	50	0.0	13.21	0.010	323	359	12.03
13	3/ 9/78	11	20	0.01	12.00	0.023	337	494	22.69
13	3/17/78	11	45	1.31	6.37	0.891	343	350	23.67
13	3/20/78	16	50	2.03	6.13	1.258	177	203	13.44
13	3/24/78	12	27	0.20	12.25	0.174	387	389	20.91
13	3/27/78	11	45	0.13	15.24	0.192	442	452	26.72
13	4/ 3/78	11	55	0.05	21.74	0.114	410	433	38.26
13	4/ 6/78	15	40	0.0	15.88	0.129	380	437	23.79
13	4/12/78	15	0	0.0	21.36	0.111	290	390	21.36
13	4/18/78	16	0	0.03	23.10	0.128	289	367	17.14
13	4/24/78	11	40	0.06	25.02	0.060	273	378	20.87
13	5/ 2/78	14	30	0.0	24.29	0.026	400	411	23.42
13	5/ 8/78	15	40	0.0	25.30	0.074	426	476	24.41
13	5/15/78	12	55	0.0	24.51	0.032	443	513	22.26
13	5/22/78	19	10	0.0	25.49	0.029	451	508	21.77
13	5/28/78	11	34	0.0	23.77	0.039	392	490	21.11
13	6/ 1/78	12	20	0.0	29.53	0.083	372	474	21.33
13	6/ 7/78	12	0	0.0	25.79	0.034	472	490	22.00
13	6/14/78	15	55	0.0	26.73	0.024	414	435	14.58
13	6/15/78	17	0	0.0	24.66	0.062	345	414	14.05
13	6/20/78	14	56	0.03	22.34	0.088	483	588	13.62
13	6/27/78	10	10	0.0	22.85	0.032	512	607	14.55
13	7/ 3/78	14	30	0.0		0.039	414	469	15.75
13	7/12/78	9	0	0.0	18.99	0.021	419	472	18.47
13	7/18/78	16	18	0.0	16.69	0.153	434	482	22.04
13	7/26/78	14	40	0.0	22.23	0.044	461	521	24.66
13	8/ 2/78	10	54	0.0	22.85	0.034	437	476	23.09
13	8/ 8/78	14	29	0.0	15.66	0.023	313	386	14.45
13	8/14/78	12	0	0.0	10.95	0.038	545	542	12.80
13	8/27/78	14	20	7.49	5.50	2.925	303	328	32.15
13	8/31/78	15	20	0.0	13.41	0.077	306	330	12.15
13	9/14/78	11	38	0.0	6.24	0.341	475	482	14.48
13	9/19/78	15	50	0.0	17.54	0.348	391	461	27.32
13	9/20/78	16	55	0.0	19.53	0.225	454	469	18.28
13	9/27/78	12	35	0.03	19.20	0.090	458	503	23.17
13	10/ 3/78	11	35	0.0	17.16	0.432	488	509	29.53
13	10/ 9/78	13	55	0.0	1.49	0.101	455	587	14.59
13	10/17/78	12	10	0.0	2.17	0.104	466	495	20.95
13	10/25/78	11	26	0.0	26.03	0.077	465	492	31.36
13	10/31/78	11	5	0.0	19.86	0.061	406	460	25.39

TABLE F3- 3. CONTINUED

SITE	DATE	HOUR	MIN	NH4-N	NO3-N	PO4-P	TDS	TDS+SEDT	CL-
				PPM					
13	11/ 7/78	14	15	0.27	18.15	0.101	407	488	25.89
13	11/14/78	15	40	0.0	14.92	0.094	357	374	20.39
13	11/21/78	15	30	0.0	14.12	0.035	358	363	19.28
13	11/29/78	16	15	0.02	12.10	0.043	325	359	20.39
13	12/ 6/78	10	45	0.02	20.80	0.010	322	330	13.25
13	12/14/78	10	5	0.38	18.30	0.077	335	386	13.10
13	12/21/78	11	50	0.03	23.52	0.208	387	462	13.89
13	12/29/78	10	25	0.0	19.25	0.017	415	453	19.63
14	1/ 5/78	12	0	0.61	13.71	0.439	294	385	53.22
14	1/13/78	11	0	0.0	13.22	0.134	361	474	24.41
14	1/26/78	11	58	0.0	11.49	0.081	360	606	20.01
14	2/16/78	11	40	0.03	10.14	0.164	331	433	26.53
14	2/28/78	11	50	0.06	9.21	0.116	426	453	33.23
14	3/ 9/78	11	20	0.01	8.98	0.286	441	470	35.21
14	3/17/78	11	45	3.57	5.83	0.950	343	356	25.29
14	3/20/78	16	50	2.35	4.98	1.337	222	453	22.01
14	3/24/78	12	27	0.02	8.39	0.315	354	395	19.75
14	3/27/78	11	45	0.24	9.35	0.302	371	395	22.14
14	4/ 3/78	11	55	0.38	10.60	0.220	210	354	42.63
14	4/ 6/78	15	40	0.01	12.92	0.155	327	426	23.42
14	4/12/78	15	0	0.0	15.50	0.146	180	353	21.12
14	4/18/78	16	0	0.03	18.43	0.219	340	605	15.79
14	4/24/78	11	40	0.04	19.11	0.078	318	379	18.40
14	5/ 2/78	14	30	0.0	18.21	0.049	397	405	25.95
14	5/ 8/78	15	40	0.0	17.50	0.115	377	456	23.19
14	5/15/78	12	55	0.0	20.94	0.045	447	482	21.11
14	5/22/78	19	10	0.0	20.80	0.057	448	504	21.79
14	5/28/78	11	34	0.0	18.96	0.073	354	453	21.11
14	6/ 1/78	12	20	0.0	19.72	0.224	392	450	22.23
14	6/ 7/78	12	0	0.0	18.18	0.074	420	438	22.09
14	6/14/78	15	55	0.0	17.24	0.080	421	426	14.30
14	6/15/78	17	0	0.02	17.14	0.112	425	430	14.05
14	6/20/78	14	56	0.05	22.29	0.109	477	584	13.67
14	6/27/78	10	10	0.0	13.78	0.045	489	636	12.16
14	7/ 3/78	14	30	0.0	19.01	0.092	378	430	15.22
14	7/12/78	9	0	0.0	16.69	0.086	424	437	20.15
14	7/18/78	16	18	0.0	13.67	0.246	418	478	22.96
14	7/26/78	14	40	0.0	13.69	0.130	418	481	21.57
14	8/ 2/78	10	52	0.27	13.69	0.389	393	443	21.77
14	8/ 8/78	14	31	0.0	14.71	0.263	504	588	27.21
14	8/14/78	12	0	4.12	16.33	1.824	416	496	22.18
14	8/21/78	16	16	0.0	17.94	0.398	433	498	22.31
14	8/27/78	14	20	5.23		2.438	385	456	23.02
14	8/31/78	15	20	0.11		0.261	402	517	28.66
14	9/ 7/78	16	2	0.0	12.78	0.265	446	450	36.30
14	9/14/78	11	39	0.07	8.08	0.428	441	449	18.79
14	9/19/78	15	50	0.0	9.15	0.121	444	450	21.03
14	9/20/78	16	55	0.05	13.47	0.348	447	472	20.50
14	9/27/78	12	35	0.0	14.59	0.093	374	466	21.14
14	10/ 3/78	11	35	0.0	12.11	0.202	386	487	28.27
14	10/ 9/78	13	55	0.0	2.07	0.141	422	454	14.15
14	10/17/78	12	10	0.0	0.80	0.162	453	478	17.25
14	10/25/78	11	28	0.0	1.63	0.147	429	453	17.37
14	10/31/78	11	5	0.05	13.54	0.266	394	461	28.09
14	11/ 7/78	14	15	0.0	12.71	0.167	375	436	22.84
14	11/14/78	15	40	0.0	9.09	0.065	267	319	20.26
14	11/21/78	15	30	0.0	12.10	0.047	300	301	19.46
14	11/29/78	16	15	0.09	9.16	0.061	359	391	20.31
14	12/ 6/78	10	45	0.16	14.36	0.027	289	304	12.94
14	12/14/78	10	5	0.66	14.29	0.096	328	338	12.62
14	12/21/78	11	50	0.08	13.64	0.079	355	389	12.94
14	12/29/78	10	25	0.0	13.38	0.023	305	427	21.79
15	1/ 5/78	12	0	0.17	13.45	0.100	223	304	29.32
15	1/13/78	11	0	0.0	13.23	0.105	397	443	30.03
15	1/26/78	11	50	0.0	12.74	0.135	357	553	28.43
15	2/16/78	11	40	0.05	10.28	0.114	312	416	27.15
15	2/28/78	11	50	0.0	9.87	0.061	380	433	30.19
15	3/ 9/78	11	20	0.01	9.20	0.158	402	434	28.63
15	3/17/78	11	45	2.27	6.41	0.794	339	381	22.52
15	3/20/78	16	50	1.78	2.59	1.064	267	330	23.12
15	3/24/78	12	27	0.08	8.51	0.179	352	385	18.88
15	3/27/78	11	45	0.05	8.28	0.128	390	395	21.30
15	4/ 3/78	11	55	0.08	8.58	0.110	373	532	33.42
15	4/ 6/78	15	40	0.0	11.02	0.119	373	415	23.33
15	4/12/78	15	0	0.0	15.70	0.145	219	350	19.87
15	4/18/78	16	0	0.0	21.34	0.176	347	491	14.97
15	4/24/78	11	40	0.06	17.76	0.086	287	326	18.31
15	5/ 2/78	14	30	0.0	13.54	0.050	340	346	20.93
15	5/ 8/78	15	40	0.0	12.37	0.078	329	374	20.02
15	5/15/78	12	55	0.0	16.14	0.040	387	427	18.19
15	5/22/78	19	10	0.0	14.57	0.045	399	426	18.15
15	5/28/78	11	34	0.0	13.57	0.082	258	412	21.32
15	6/ 1/78	12	20	0.0	14.02	0.137	322	373	18.95
15	6/ 7/78	12	0	0.0	13.36	0.086	298	319	18.52
15	6/14/78	15	55	0.07	14.23	0.123	344	334	15.27
15	6/15/78	17	0	0.0	14.44	0.098	354	377	12.45
15	6/20/78	14	56	0.06	18.53	0.114	414	536	12.49
15	6/27/78	10	10	0.08	11.79	0.173	362	444	12.91
15	7/ 3/78	14	30	0.05	14.39	0.099	306	343	13.50
15	7/12/78	9	0	0.0	11.78	0.115	344	365	17.26
15	7/18/78	16	27	0.0	10.13	0.160	335	410	15.82
15	7/26/78	14	40	0.0	10.58	0.106	334	419	16.35
15	8/ 2/78	10	50	0.12	11.11	0.239	415	409	54.20
15	8/ 8/78	14	27	0.0	10.21	0.112	410	456	20.83
15	8/14/78	12	0	0.0	10.11	0.252	520	554	73.41
15	8/21/78	16	16	0.31	5.71	0.579	287	723	19.81
15	8/27/78	14	20	0.80	4.87	0.906	418	477	26.56
15	8/31/78	15	20	0.04	7.77	0.245	406	466	18.52
15	9/ 7/78	16	2	0.0	8.91	0.172	439	477	19.47
15	9/14/78	11	40	0.07	6.53	0.293	366	406	21.23

TABLE F3- 3. CONTINUED

SITE	DATE	HOUR	MIN	NH4-N	NO3-N	PO4-P	TDS	TDS+SEDT	CL-
				PPM					
15	9/19/78	15	50	0.0	8.23	0.120	377	436	17.96
15	9/20/78	16	55	0.0	12.11	0.220	319	404	14.97
15	9/27/78	12	35	0.02	10.86	0.077	294	382	19.20
15	10/ 3/78	11	35	0.0	9.35	0.087	295	380	15.34
15	10/ 9/78	13	56	0.0	19.86	0.096	384	385	24.49
15	10/17/78	12	10	0.0	0.80	0.081	356	380	21.01
15	10/25/78	11	28	0.0	0.92	0.080	324	361	13.78
15	10/31/78	11	5	0.02	10.63	0.128	311	373	23.28
15	11/ 7/78	14	15	0.0	8.24	0.110	330	369	24.34
15	11/14/78	15	40	0.0	7.30	0.066	277	327	15.27
15	11/21/78	15	30	0.0	7.87	0.055	264	312	15.33
15	11/29/78	16	15	0.12	8.19	0.307	301	329	22.08
15	12/ 6/78	10	45	0.08	11.43	0.026	236	247	14.74
15	12/14/78	10	5	0.19	11.02	0.125	268	303	20.67
15	12/21/78	11	50	0.19	10.73	0.115	262	272	13.96
15	12/29/78	10	25	0.47	11.55	0.139	370	375	24.36
16	1/24/78	11	40	0.0	28.07	0.072	548	1049	42.88
16	2/16/78	11	25	0.06	15.22	0.068	421	665	37.15
16	2/28/78	11	33	0.0	12.67	0.018	545	556	33.72
16	3/ 9/78	11	0	0.0	16.26	0.098	566	1229	32.42
16	3/17/78	11	25	0.85	11.51	0.823	344	392	27.86
16	3/20/78	17	20	1.12	8.25	1.003	330	470	17.94
16	3/24/78	12	35	0.11	18.33	0.249	448	512	30.52
16	3/27/78	11	15	0.36	18.13	0.166	527	533	33.18
16	4/ 3/78	11	30	0.0	18.97	0.105	503	504	43.60
16	4/ 6/78	15	50	0.11	21.00	0.245	538	571	37.99
16	4/12/78	15	20	0.0	26.40	0.146	519	505	33.34
16	4/18/78	11	32	0.08	26.40	0.209	445	729	27.37
16	4/24/78	11	25	0.03	26.34	0.084	359	465	30.10
16	5/ 2/78	14	10	0.0	28.07	0.025	366	541	29.85
16	5/ 8/78	16	0	0.0	25.77	0.078	509	627	32.24
16	5/15/78	12	26	0.0	26.65	0.026	511	576	30.56
16	5/22/78	19	0	0.0	33.13	0.023	527	593	30.00
16	5/28/78	11	59	0.0	24.48	0.024	463	567	31.30
16	6/ 1/78	12	45	0.0	28.61	0.071	460	557	33.69
16	6/ 7/78	11	40	0.0	27.00	0.056	549	560	31.20
16	6/14/78	11	0	0.0	28.13	0.036	510	531	32.45
16	6/15/78	17	20	0.02	24.84	0.084	497	522	30.36
16	6/20/78	15	16	0.04	24.38	0.123	575	676	34.34
16	6/27/78	10	30	0.0	19.05	0.019	612	687	15.27
16	7/ 3/78	14	20	0.0	26.13	0.040	474	554	23.64
16	7/12/78	8	37	0.0	27.79	0.014	478	538	34.15
16	7/18/78	15	48	0.0	15.42	0.049	333	474	21.89
16	7/26/78	14	20	0.0	25.42	0.055	489	599	36.56
16	8/ 2/78	10	35	0.02	12.48	0.046	310	334	20.55
16	8/ 8/78	14	18	0.16	11.38	0.066	348	470	19.66
16	8/14/78	12	0	0.0	11.73	0.052	327	407	18.33
16	8/27/78	14	45	0.0	16.77	0.143	508	540	29.47
16	8/31/78	15	40	0.0	17.85	0.134	539	608	38.38
16	9/14/78	12	11	0.0	16.41	0.099	497	543	26.98

SITE	DATE	HOUR	MIN	NH4-N	NO3-N	PO4-P	TDS	TDS+SEDT	CL-
				PPM					
16	9/19/78	16	15	0.0	18.77	0.037	431	539	28.84
16	9/20/78	12	38	0.0	15.06	0.468	360	485	22.91
16	9/27/78	12	10	0.0	20.57	0.038	417	547	30.34
16	10/ 3/78	10	45	0.0	20.20	0.058	423	541	32.02
16	10/ 9/78	14	18	0.0	30.00	0.100	526	536	43.79
16	10/17/78	11	50	0.0	22.71	0.028	519	532	38.90
16	10/25/78	11	0	0.0	1.04	0.035	543	544	14.62
16	10/31/78	10	45	0.0	23.14	0.033	430	512	27.58
16	11/ 7/78	10	56	0.0	21.20	0.041	446	509	27.58
16	11/14/78	16	6	0.0	12.36	0.026	368	450	25.38
16	11/21/78	16	0	0.0	12.47	0.019	371	445	28.49
16	11/29/78	17	0	0.0	10.19	0.045	462	479	28.15
16	12/ 6/78	10	30	0.01	23.60	0.010	298	346	19.72
16	12/14/78	10	15	0.0	22.94	0.003	338	406	17.69
16	12/21/78	11	40	0.02	23.49	0.015	375	413	20.60
16	12/29/78	10	35	0.01	16.40	0.004	345	399	19.40
17	1/24/78	11	36	0.0	18.90	0.065	401	620	26.14
17	2/ 3/78	12	5	0.11	16.69	0.063	235	486	24.22
17	2/16/78	11	10	0.02	14.52	0.048	322	480	22.12
17	2/28/78	11	35	0.02	14.13	0.014	399	418	22.26
17	3/ 9/78	11	0	0.01	11.04	0.175	425	532	25.29
17	3/17/78	11	30	1.80	7.65	0.830	267	285	21.57
17	3/20/78	17	24	0.36	6.78	0.530	228	299	21.84
17	3/24/78	12	35	0.0	17.86	0.057	334	364	19.22
17	3/27/78	11	15	0.0	16.93	0.104	384	387	21.70
17	4/ 3/78	11	30	0.0	16.70	0.043	247	311	22.44
17	4/ 6/78	15	50	0.0	17.18	0.056	397	415	22.18
17	4/12/78	15	20	0.0	19.61	0.056	162	377	21.64
17	4/18/78	11	33	0.0	24.00	0.050	276	324	18.31
17	4/24/78	11	25	0.04	21.71	0.062	276	348	19.70
17	5/ 2/78	14	10	0.0	21.68	0.013	257	355	24.27
17	5/ 8/78	16	0	0.0	21.25	0.102	411	426	32.73
17	5/15/78	12	25	0.0	23.30	0.031	398	494	21.37
17	5/22/78	19	0	0.0	22.55	0.021	418	471	19.81
17	5/28/78	11	59	0.0	22.52	0.064	359	446	19.81
17	6/ 1/78	12	45	0.0	21.20	0.045	365	418	24.21
17	6/ 7/78	11	43	0.0	19.78	0.031	329	385	19.64
17	6/14/78	11	0	0.0	22.15	0.023	406	406	14.55
17	6/15/78	17	20	0.0	20.98	0.028	391	414	14.87
17	6/20/78	15	18	0.02	20.59	0.040	489	576	29.41
17	6/27/78	10	30	0.0	20.48	0.012	466	539	15.36
17	7/ 3/78	14	20	0.0	19.76	0.032	397	424	15.64
17	7/12/78	8	37	0.0	18.25	0.022	384	385	20.24
17	7/18/78	15	48	0.84	22.33	0.246	456	1286	37.26
17	7/26/78	14	25	0.0	14.96	0.043	360	459	20.91
17	8/ 2/78	10	32	0.14	24.70	0.084	546	616	37.71
17	8/27/78	14	45	0.0	14.15	0.081	419	451	20.35
17	8/31/78	15	40	0.0		0.027	412	428	22.59
17	9/14/78	12	12	0.0	12.10	0.034	404	449	19.63
17	9/19/78	16	20	0.0	13.11	0.015	382	442	22.08

TABLE F3- 3. CONCLUDED

SITE	DATE	HOUR	MIN	NH4-N	NO3-N	PO4-P	TDS	TDS+SEDT	CL-
				PPM					
17	9/20/78	12	40	0.0	13.59	0.127	237	417	15.90
17	9/27/78	12	10	0.0	16.65	0.025	358	440	20.05
17	10/ 3/78	10	45	0.0	18.61	0.027	385	452	20.60
17	10/ 9/78	14	20	0.0	0.84	0.017	433	453	11.41
17	10/17/78	11	50	0.0	1.74	0.020	447	468	14.84
17	10/25/78	11	0	0.0	1.95	0.023	455	455	13.01
17	10/31/78	10	45	0.0	16.19	0.023	330	424	22.57
17	11/ 7/78	10	58	0.0	14.56	0.029	347	418	21.80
17	11/14/78	16	8	0.0	12.40	0.080	394	395	21.19
17	11/21/78	16	0	0.0	11.90	0.012	358	382	19.88
17	11/29/78	17	0	0.0	11.81	0.025	348	350	19.82
17	12/ 6/78	10	30	0.0	15.59	0.003	187	308	12.54
17	12/14/78	10	15	0.0	15.00	0.002	202	338	12.34
17	12/21/78	11	40	0.0	13.37	0.007	243	335	12.58
17	12/29/78	10	35	0.0	24.27	0.011	471	477	20.75
18	4/ 6/78	15	10	0.0	5.69	0.028	327	330	7.49
18	4/ 9/78	12	17	0.0	5.57	0.078	217	345	7.58
18	4/12/78	15	40	0.04	5.46	0.031	360	380	8.82
18	4/18/78	13	10	0.0	5.83	0.163	232	454	12.09
18	5/ 2/78	18	0	0.0	7.36	0.012	163	285	11.55
18	5/ 8/78	16	10	0.0	6.30	0.025	261	286	12.88
18	5/15/78	15	22	0.0	5.69	0.018	233	309	9.13
18	5/22/78	18	30	0.0	6.49	0.033	290	344	11.01
18	5/28/78	15	7	0.0	6.81	0.029	234	313	11.36
18	6/ 1/78	14	40	0.0	8.09	0.031	248	255	11.08
18	6/ 7/78	12	55	0.0	6.15	0.035	126	161	11.25
18	6/14/78	12	25	0.0	7.08	0.029	267	289	9.80
18	6/15/78	15	55	0.05	7.84	0.029	272	285	9.81
18	6/20/78	1	55	0.04	7.23	0.073	280	486	10.49
18	6/27/78	12	15	0.0	7.22	0.019	220	285	11.72
18	7/ 3/78	15	55	0.0	6.80	0.044	245	281	10.48
18	7/12/78	9	32	0.0	0.49	0.031	252	257	11.23
18	9/20/78	13	45	0.0	5.76	0.028	253	383	14.65
18	11/29/78	13	0	0.0	4.57	0.025	231	306	11.99
19	3/28/78	11	43	0.0	10.13	0.009	308	327	15.15
19	4/ 3/78	13	54	0.0	9.45	0.009	84	192	14.64
19	4/ 6/78	14	45	0.0	12.28	0.012	329	351	17.02
19	4/ 9/78	13	25	0.0	12.63	0.012	300	326	16.28
19	4/12/78	15	40	0.0	13.54	0.013	408	419	17.63
19	4/18/78	12	20	0.0	12.77	0.019	30	202	16.86
19	5/ 2/78	18	0	0.0	17.05	0.005	231	348	20.07
19	5/ 8/78	16	20	0.0	17.70	0.015	305	348	21.10
19	5/15/78	15	21	0.0	16.00	0.009	327	402	15.17
19	5/22/78	18	30	0.0	16.65	0.010	329	388	15.08
19	5/28/78	14	52	0.0	15.28	0.007	273	368	14.59
19	6/ 1/78	14	23	0.0	15.16	0.012	275	338	17.69
19	6/ 7/78	12	50	0.0	13.20	0.020	271	258	12.74
19	6/14/78	12	10	0.0	12.30	0.014	253	282	
19	6/15/78	15	50	0.0	15.07	0.018	242	299	
19	6/20/78	1	45	0.07	13.29	0.096	335	393	10.29
19	6/27/78	12	10	0.0	11.42	0.009	244	317	11.05
19	7/ 3/78	15	50	0.0	13.03	0.016	270	307	11.40
19	7/12/78	9	28	0.0	12.54	0.040	288	299	14.34
19	7/26/78	16	20	0.0	12.45	0.016	306	382	14.78
19	9/20/78	13	35	0.0	5.72	0.010	255	422	12.22
19	9/27/78	13	15	0.0	7.35	0.012	252	419	11.73
19	10/ 3/78	11	55	0.0	8.04	0.015	372	452	14.44
19	10/ 9/78	12	45	0.0	0.48	0.006	359	381	10.00
19	10/17/78	15	10	0.0		0.012	406	452	20.98
19	10/25/78	11	45	0.0	9.70	0.016	433	452	9.35
19	10/31/78	15	15	0.0	6.59	0.010	268	398	14.86
19	11/ 7/78	14	0	0.01	6.83	0.029	348	409	15.20
19	11/14/78	11	15	0.0	6.80	0.001	361	364	15.26
19	11/21/78	12	0	0.0	6.61	0.004	363	418	14.15
19	11/29/78	13	0	0.0	5.57	0.014	395	428	14.37
19	12/ 6/78	11	15	0.0	8.87	0.010	191	321	10.00
19	12/14/78	9	40	0.0	8.68	0.002	226	326	10.00
19	12/21/78	12	8	0.0	7.53	0.026	229	331	9.43
19	12/29/78	9	55	0.0	8.53	0.018	293	338	12.40

TABLE F4- 1. FOUR MILE CREEK WATERSHED PRECIPITATION NUTRIENT CONCENTRATION DATA FOR 1976

GAGE	DATE	NH4-N	NO3-N	PO4-P	TDS	TDS+SEDT	CL-
		PPM					
30	1/ 5/76	0.54	0.71	0.093			2.21
30	2/25/76	0.14	0.10	0.015	13	48	0.57
30	3/ 2/76	2.84	0.94	0.057			
30	3/ 4/76	0.29	0.28	0.043	6	23	0.0
30	3/ 5/76	0.44	0.10	0.115			
30	3/12/76	0.87	0.69	0.008	25	50	1.00
30	3/13/76	0.93	0.87				
30	3/27/76		6.64	0.156			11.17
30	3/29/76		0.71	0.017			2.28
30	3/30/76		0.69	0.014			1.08
30	4/15/76	2.24	0.96	0.018			1.30
30	4/17/76	0.71	0.24	0.001	15	22	0.65
30	4/18/76	0.68	0.23	0.011			0.93
30	4/21/76	0.93	0.49	0.009	14	0	0.63
30	4/23/76	0.97	0.50	0.014	3	16	0.59
30	4/24/76	1.34	0.68	0.015	6	0	0.50
30	5/ 2/76	0.46	0.32	0.028	34	63	0.75
30	5/13/76	0.83	1.50	0.019			0.60
30	5/17/76	0.51	0.36	0.008			0.33
30	5/24/76	1.26	1.21	0.028	87	59	0.02
30	5/29/76	0.92	0.09	0.019	26	28	0.95
30	6/10/76		0.91	0.178			0.44
30	6/13/76	0.56	0.44	0.004	19	37	0.58
30	6/14/76	0.53	0.40	0.033	71	1	0.60
30	6/18/76		2.09	0.009			1.56
30	6/24/76	0.43	0.86	0.026			1.12
30	6/27/76	1.77	3.40				3.62
30	6/28/76	0.30	1.18	0.058			1.18
30	6/29/76	1.54	0.90	0.015	93	53	0.81
30	7/21/76	1.15	2.20	0.397			3.50
30	7/28/76	0.06	0.81	0.012	71	36	7.80
30	8/12/76	0.34	0.90	0.021	36	33	0.09
30	8/17/76	0.07	1.27	0.026			6.67
30	9/19/76	0.58	0.74	0.008	73	87	0.61
30	10/ 4/76	0.92	0.80	0.440	43	56	1.01
30	10/22/76	1.16	1.74	0.083			0.79
30	10/25/76	1.08	1.04	0.303	12	39	1.23
30	11/ 1/76	0.73	0.44	0.015	21	9	0.44
30	12/30/76	1.06	0.93	0.032			3.11

TABLE F4- 2. FOUR MILE CREEK WATERSHED PRECIPITATION NUTRIENT CONCENTRATION DATA FOR 1977

GAGE	DATE	NH4-N	NO3-N	PO4-P	TDS	TDS+SEDT	CL-
		PPM					
30	1/ 3/77	1.94	1.25	0.041			5.61
30	1/14/77	1.13	3.49	0.008			4.25
30	1/20/77	0.65	0.77	0.002			1.53
30	1/23/77	0.64	1.69	0.014			3.35
30	1/28/77	0.98	3.16				4.36
30	2/ 5/77	0.44	1.90	0.004			2.81
30	2/23/77	2.26	1.63	0.023			1.37
30	2/24/77	4.73	1.06	0.041			1.57
30	3/ 2/77	1.08	1.16	0.125			1.63
30	3/ 3/77	1.06	1.28	0.042			1.74
30	3/11/77	0.74	0.33	0.012	14	62	0.51
30	3/17/77	2.04	0.98	0.017	7	53	5.41
30	3/19/77	0.88	0.55	0.021			1.81
30	3/28/77	2.00	0.56	0.003	53	53	0.73
30	4/ 2/77	1.17	0.86	0.003	0	51	0.77
30	4/ 4/77	1.57	0.84	0.001	4	87	0.77
30	4/15/77	3.08	1.97	0.008			1.50
30	4/19/77	3.70	0.91	0.003	85	100	0.78
30	4/28/77	4.29		0.017			0.60
30	5/ 4/77	1.53	1.14	0.002	11	46	0.14
30	5/16/77	0.83	2.25	0.002	49	64	1.36
30	5/30/77	0.68	1.44		21	74	0.69
30	6/11/77	1.05	1.30	0.0	26	23	0.60
30	6/17/77	0.45	0.50	0.003	0	14	0.45
30	6/23/77	0.49	0.96	0.025			0.49
30	7/ 3/77	4.16	0.89	0.452	76	99	1.35
30	7/ 6/77	0.58	0.53	0.136	25	38	0.43
30	7/18/77	0.32	0.55	0.0			0.0
30	7/26/77	0.47	1.60	0.033	0	0	3.91
30	7/28/77	1.10	1.63	0.026	0	10	3.68
30	8/ 1/77	0.46	1.20	0.029	3	8	3.56
30	8/ 5/77	0.35	0.35	0.011			0.73
30	8/ 8/77	0.43	0.71	0.001	29	84	0.70
30	8/ 9/77	0.0	0.32	0.002	71	0	0.64
30	8/15/77	0.20	0.25	0.0	60	0	0.55
30	8/19/77	0.41	0.63	0.002	27	72	0.28
30	8/28/77	0.15	0.32	0.0	0	0	0.35
30	9/ 1/77	0.12	0.12	0.014	0	10	0.0
30	9/ 7/77	0.10	0.10	0.004			0.70
30	9/18/77	0.21	0.26	0.005	0	38	0.77
30	9/23/77	0.17	8.08	0.124	28	5	11.27
30	10/ 7/77	0.43	6.44	0.034	25	40	6.84
30	10/25/77	0.47	0.31	0.020			0.95
30	11/ 1/77	0.25	0.44	0.017	8	18	0.92
30	11/ 8/77	1.04	0.97	0.022			1.07
30	11/23/77	0.47	0.51	0.019	22	86	3.75
30	11/25/77	0.39	0.68	0.014	16	59	2.09
30	11/30/77	1.25	1.04	0.132	14	80	1.63
30	12/ 5/77	0.78	0.81	0.072	6	30	0.39
30	12/ 8/77	1.15	1.13	0.138	8		0.58
30	12/15/77	0.93	1.38	0.043	5	36	1.54
30	12/17/77	2.45	1.37	0.062	0	67	1.24
30	12/19/77	1.12	0.59	0.101	5	48	1.37

TABLE F4- 3. FOUR MILE CREEK WATERSHED PRECIPITATION NUTRIENT CONCENTRATION DATA FOR 1978

GAGE	DATE	NH4-N	NO3-N	PO4-P	TDS	TDS+SEDT	CL-
		PPM					
30	1/ 1/78	0.75	0.60	0.020			1.16
30	1/ 5/78	1.14	0.92	0.058	8	36	4.08
30	1/12/78	1.75	1.46	0.103			0.90
30	1/13/78	0.89	0.95	0.014	36		3.53
30	1/24/78	2.70	2.41	0.422			2.61
30	1/25/78	0.61	0.50	0.017	22	58	1.32
30	2/ 1/78	0.94	0.33	0.377	11	14	1.69
30	2/ 3/78	0.81	0.91	0.224	11	51	13.44
30	2/22/78	2.41	2.29	0.224	35		20.06
30	2/28/78	1.37	5.12	0.130			18.07
30	4/ 9/78	0.97	0.31	0.007	4	4	0.67
30	4/17/78	1.84	0.36	0.025	9	9	0.51
30	4/24/78	1.54	0.26	0.014			0.47
30	5/ 8/78	0.96	0.46	0.136	0	15	0.43
30	5/13/78	0.65	0.36	0.007			0.45
30	5/27/78	0.25	0.26	0.004	4	13	0.29
30	5/31/78	0.51	0.27	0.0	0	41	0.33
30	6/ 7/78	0.30	0.26	0.020			0.37
30	6/15/78	0.57	0.44	0.020	30	61	0.24
30	6/20/78	0.27	0.39	0.004			1.84
30	7/ 3/78	0.29	0.89	0.014	28	31	0.60
30	7/ 9/78	0.75	0.42	0.012	0	3	0.34
30	7/18/78	0.33	0.60	0.014	3	7	0.32
30	7/24/78	0.14	0.53	0.003			0.36
30	7/26/78	0.49	1.27	0.025			0.68
30	8/27/78	0.33	0.22	0.025	0	0	0.57
30	9/19/78	0.02	0.30	0.025	9	11	0.61
30	9/20/78	0.06	0.11	0.007	0	0	0.13
30	10/ 3/78	0.29	0.38	0.002	0	0	0.26
30	10/ 9/78	0.29	0.46	0.010			0.15
30	10/17/78	0.52	0.58	0.011	5	28	0.29
30	10/25/78	1.01	1.24	0.010			0.43
30	11/14/78	0.39	0.72	0.003	0	0	0.27
30	11/22/78	0.64	0.40	0.039	14	14	0.34
30	11/27/78	2.05	0.98		28	34	0.18
30	11/29/78	0.58	0.87	0.0	0	0	0.42
30	12/ 1/78	0.73	0.82	0.066	2	19	0.92
30	12/ 2/78	0.82	0.78	0.075	16	34	0.44
30	12/ 5/78	0.56	0.35	0.048	2	6	0.11
30	12/ 7/78	0.74	0.90	0.069	28	28	1.12
30	12/29/78	2.52	2.61	0.105			2.13
30	12/31/78	0.19	0.26	0.043	30	60	0.30

TABLE F5-1. NUTRIENT CONCENTRATIONS IN SEDIMENT AND KJELDAHL-N AND TOTAL-P IN SOLUTION FOR SELECTED SAMPLES FOR SITE 1

SITE	DATE	HOUR	MIN	SEDT CONC	EXT-N	AVL-P	KJELDAHL-N SEDT	KJELDAHL-N WATER	TOTAL-P SEDT	TOTAL-P WATER
				PPM						
1	5/29/76	7	25	26035	2.2	42.2				
1	5/29/76	7	26	36578	28.1	34.5				
1	5/29/76	7	28	42871	8.6	32.3				
1	6/13/76	18	54	24939	2.9	27.9				
1	6/13/76	18	55	26205	6.6	23.9				
1	6/13/76	18	56	18436	3.6	24.7				
1	6/13/76	18	57	18744	4.4	19.8				
1	6/13/76	18	58	20212	5.4	19.9				
1	6/13/76	19	1	14569	5.7	22.7				
1	6/13/76	19	5	11528		19.2				
1	6/13/76	19	9	9909	7.0	22.7				
1	6/13/76	19	11	9904		20.1				
1	6/13/76	20	57	4107	3.2	30.1				
1	6/13/76	20	59	3856	3.8	25.9				
1	6/13/76	21	1	3897	3.7	28.1				
1	6/13/76	21	3	3555	4.8	23.3				
1	6/13/76	21	5	3541	5.7	21.1				
1	6/13/76	21	9	3589	6.6	30.4				
1	4/19/77	17	13	97263	267.9	63.6				
1	4/19/77	17	14	100957	311.6	75.3				
1	4/19/77	17	15	95407	223.0	69.7				
1	8/15/77	22	16	20008		35.9				
1	8/15/77	22	18	26544		34.5				
1	8/15/77	22	19	22950		25.8				
1	8/15/77	22	21	35629		31.2				
1	8/15/77	22	23	35196		23.8				
1	8/15/77	22	25	25506		27.5				
1	8/15/77	22	26	21119		35.1				
1	8/15/77	22	27	17668		35.7				
1	8/15/77	22	29	14419		40.6				
1	8/15/77	22	31	9824		44.8				
1	8/15/77	22	33	9051		59.2				
1	8/15/77	22	35	8651		44.7				
1	8/15/77	22	37	7439		48.4				
1	8/15/77	22	39	6537		52.0				
1	8/15/77	22	41	5602		33.5				
1	8/15/77	22	43	4977		55.3				
1	8/15/77	22	45	4503		56.8				
1	8/15/77	22	47	4206		71.0				
1	4/17/78	23	5	12443	23.0	13.1	1570		779	
1	4/17/78	23	13	14478	25.1	12.9	1690		919	
1	4/17/78	23	18	14350	21.3	14.6	1670		637	
1	4/17/78	23	24	11903	13.1	13.7	1720		983	
1	4/17/78	23	30	10147	18.6	15.1	1950		1010	
1	4/17/78	23	37	9240	17.2	14.1	1800		1040	
1	4/17/78	23	44	8124	23.9	14.4	1700		1160	
1	4/17/78	23	51	6557	21.4	22.0	1910		975	
1	4/18/78		1	5845	17.6	32.8	1800		965	
1	4/18/78		10	4807	14.0	35.7	2040		1160	
1	4/18/78		20	4121	14.4	37.5	2160		1190	

SITE	DATE	HOUR	MIN	CONC	EXT-N	AVL-P	KJELDAHL-N SEDT	KJELDAHL-N WATER	TOTAL-P SEDT	TOTAL-P WATER
				PPM						
1	4/18/78		30	3607		35.7	2230		1170	
1	4/18/78		45	2549	14.2	38.3	2360		1340	
1	4/18/78	1	0	1146			2770		1390	
1	4/18/78	1	20	680			3100		1420	
1	4/18/78	1	39	601			3140		1490	
1	5/13/78	2	21	4027	40.6	26.7	2080			
1	5/13/78	2	44	4349	40.0	18.2	2440		1300	
1	5/13/78	3	17	4346	18.9	16.3	2280		1100	
1	5/13/78	3	48	3468	30.5	19.1	2530		1520	
1	5/13/78	4	42	3969	26.0	18.1	2780		1340	
1	5/27/78	16	39	45478	24.2	21.2	1350	0.50	814	0.03
1	5/27/78	16	41	42044	23.6	20.4	1550	0.48	938	0.05
1	5/27/78	16	44	32655	24.1	22.1	1470	0.43	808	0.05
1	5/27/78	16	47	27178	21.8	19.4	1520	0.42		0.05
1	5/27/78	16	49	40199	25.3	23.3	1480	0.16	868	0.20
1	5/27/78	16	51	36308	25.9	22.8	1580	0.19	953	0.17
1	5/27/78	16	53	32898	18.4	22.4	1670	0.18	934	0.18
1	5/27/78	16	55	28788	25.1	21.1	1800	0.60	1260	0.05
1	5/27/78	17	10	11132	23.7	30.4	2430	1.18	1170	0.10
1	5/27/78	17	28	4404	26.7	40.6	2770		1320	
1	5/27/78	17	41	2975		40.5	2640		1450	
1	5/31/78	22	24	31348	27.2	20.9	1820	0.57	1100	0.06
1	5/31/78	22	27	21758	30.2	17.2	2130	0.53	1180	0.06
1	5/31/78	22	30	17211	35.8	17.2	2300	0.48	1090	0.06
1	5/31/78	22	33	10900	24.9	16.2	2020	0.42	1290	0.05
1	5/31/78	22	41	8816	31.3	17.3	2020		1210	
1	5/31/78	22	51	6148	34.4	27.6	2670		1400	
1	5/31/78	23	3	5184	40.0	31.0	2750		1700	
1	6/15/78	1	21	16746	36.8	15.7	1850	0.57	1080	0.04
1	6/15/78	1	26	12527	45.2	17.7	2100	0.66		0.05
1	6/15/78	1	31	8990	52.8	15.7	2360		1130	
1	6/15/78	1	44	7590	25.1	19.6	2070		1120	
1	6/15/78	1	47	14064	22.0	22.7	1750	0.40	1020	0.05
1	6/15/78	1	53	16217	17.2	19.4	1680	0.12	920	0.06
1	6/15/78	1	56	15891	31.9	24.1	1760	0.19	978	0.06
1	6/15/78	2	2	11341	23.4	18.6	2100	0.19	1140	0.05
1	6/15/78	2	6	9955	29.2	23.5				
1	6/15/78	2	17	6320	25.4	29.2	2900		1300	
1	6/15/78	2	35	3430	24.7	36.5	2830		1060	
1	6/20/78		58	17362	30.7	17.6	1890	0.32	884	0.04
1	6/20/78	1	1	15610	32.0	20.1	1960	0.27	1030	0.04
1	6/20/78	1	5	12541	24.9	18.3	2010	0.25	1120	0.05
1	6/20/78	1	9	15879	22.9	19.3	2200	0.30	992	0.05
1	6/20/78	1	13	13229	36.1	21.3	2380	0.34	887	0.06
1	6/20/78	1	15	11053	32.8	20.5	2200	0.29	1020	0.04
1	6/20/78	1	17	10167	19.9	19.4	2170	0.28	1210	0.04
1	6/20/78	1	19	9059	37.3	21.6	2330		1200	
1	6/20/78	1	28	8619	21.7	22.0	2060		1230	
1	6/20/78	1	42	4807	28.7	27.0	2460		1010	
1	6/20/78	2	1	3324	19.4	31.5				
1	6/20/78	2	22	6195	28.3	22.9	2530		1180	
1	6/20/78	2	42	4329			2580		1370	

TABLE F5-2. NUTRIENT CONCENTRATIONS IN SEDIMENT AND KJELDAHL-N AND TOTAL-P IN SOLUTION FOR SELECTED SAMPLES FOR SITE 2

SITE	DATE	HOUR	MIN	SEDT CONC	EXT-N	AVL-P	KJELDAHL-N SEDT	KJELDAHL-N WATER	TOTAL-P SEDT	TOTAL-P WATER
				PPM						
2	5/29/76	7	30	20110	6.2	41.7				
2	5/29/76	7	31	22741	8.0	48.0				
2	6/13/76	19	55	4912	4.5	30.2				
2	8/15/77	22	21	32005		20.1				
2	8/15/77	22	23	33636		19.7				
2	8/15/77	22	24	44299		18.4				
2	8/15/77	22	26	36643		27.0				
2	8/15/77	22	28	25867		18.0				
2	8/15/77	22	30	21282		19.6				
2	8/15/77	22	32	14156		20.3				
2	8/15/77	22	34	9960		25.3				
2	8/15/77	22	36	8705		27.3				
2	8/15/77	22	38	7848		28.5				
2	4/17/78	23	4	4630	20.7	12.8	2680		1230	
2	4/17/78	23	12	3628	61.0	16.3	2820		1210	
2	4/17/78	23	15	3475	69.1	16.3	2260		1490	
2	4/17/78	23	17	3151	32.3	15.6	3000		1280	
2	4/17/78	23	20	2847	29.1	17.0			1410	
2	4/17/78	23	22	2937	31.0	18.7				
2	4/17/78	23	25	2802	22.0	16.8	2620		1280	
2	4/17/78	23	27	2690	66.4	23.9	2790			
2	4/17/78	23	29	2665	26.5	22.4	3140		1310	
2	4/17/78	23	32	2494	27.7	18.4	2780		1250	
2	4/17/78	23	34	2504	18.0	16.9	3360		1490	
2	4/17/78	23	36	2238		13.5	2910		1320	
2	4/17/78	23	41	2083		20.3	3090		1330	
2	4/17/78	23	46	1947		17.5	2670			
2	4/17/78	23	51	1745		17.3	3600		1340	
2	4/17/78	23	56	1620		17.5	3040		1390	
2	4/18/78		1	1527			3480		1630	
2	4/18/78		6	1551		20.8	3110			
2	4/18/78		13	1564			3110			
2	4/18/78		18	1461		22.0				
2	4/18/78		23	1490		18.3	3440		1380	
2	4/18/78		28	1436			3500		1470	
2	4/18/78		33	1424			2950		1280	
2	4/18/78		43	1295			3360		1380	
2	4/18/78		53	1214			3670		1720	
2	4/18/78	1	3	1069			3320		1760	
2	4/18/78	1	18	1004			3960		1690	
2	4/18/78	1	33	888			4120		1780	
2	4/18/78	1	48	835			3390		1790	
2	5/27/78	16	36	18085	29.8	25.9	1730	0.71	968	0.07
2	5/27/78	16	38	25884	22.1	33.0	1760	0.70	949	0.08
2	5/27/78	16	40	24935	33.8	31.6	1820	0.72	925	0.09
2	5/27/78	16	42	21237	43.8	35.9	2030	0.73	1040	0.09
2	5/27/78	16	44	20686	29.9	30.6	1870	0.79	923	0.09
2	5/27/78	16	46	18892	42.6	32.9	1750	0.60	940	0.08
2	5/27/78	16	48	20521	25.4	28.0	1810	0.56	964	0.08
2	5/27/78	16	50	19750	34.0	30.4	2110	0.54	941	0.09
2	5/27/78	16	52	16836	36.6	29.6	2090	0.58	946	0.09
2	5/27/78	16	54	14016	25.7	32.8	2510	0.54	1180	0.13
2	5/27/78	16	56	6792	39.7	31.6	2230		838	
2	5/27/78	16	58	11786	27.8	32.7	2140	0.52	1060	0.14
2	5/27/78	17	0	11304	37.1	32.1	2190	0.57	1030	0.12
2	5/27/78	17	2	9855	38.5	32.4	2610		1180	
2	5/27/78	17	6	7399	45.7	32.5	2820		1140	
2	5/27/78	17	24	3419		36.2	3200		1330	
2	5/31/78	22	20	29031	49.7	22.1	2010	0.79	948	0.06
2	5/31/78	22	24	22808	41.1	29.9	2020	0.56	1010	0.08
2	5/31/78	22	26	26189	39.6	29.1	2100	0.60	1020	0.09
2	5/31/78	22	28	21600	46.4	30.2	2300	0.61	1090	0.12
2	5/31/78	22	30	18126	38.5	31.4	2090	0.60	1150	0.06
2	5/31/78	22	32	14922	47.3	28.8	2250	0.64	1170	0.09
2	5/31/78	22	34	11662	40.4	29.4	2420	0.63	1240	0.08
2	5/31/78	22	35	10828	54.1	25.7	2320	0.67	1240	0.03
2	5/31/78	22	40	7194	50.7	29.6	2830			
2	5/31/78	22	49	4021	35.4	32.9	3110		1350	
2	6/15/78	1	18	13248	26.5	18.8	1680	0.68	1010	0.03
2	6/15/78	1	21	8168	57.3	22.5	2420		1110	
2	6/15/78	1	24	9769	50.9	22.6	2710		1330	
2	6/15/78	1	26	10200	44.4	26.3	2360	0.05	1200	0.05
2	6/15/78	1	28	9621	43.0	23.6	2220		1270	
2	6/15/78	1	31	9981	44.6	29.1	2730	0.45	1220	0.07
2	6/15/78	1	34	8060	63.0	27.8	3110		1420	
2	6/15/78	1	43	4184	44.0	28.4	2970		1480	
2	6/15/78	1	50	8135	36.4	26.5	2310		1160	
2	6/15/78	1	51	7004	39.9	24.4				
2	6/15/78	1	52	10870	28.7	29.5	1900	0.33		0.06
2	6/15/78	1	53	10346	29.6	29.0	2130	0.38	940	0.07
2	6/15/78	1	54	10915	28.3	26.7	1990	0.40	913	0.07
2	6/15/78	1	56	11582	33.2	26.6	1950	0.41	1040	0.08
2	6/15/78	1	58	10321	26.0	28.8	2070		1030	
2	6/15/78	1	59	7937	27.6	27.4	2020		833	
2	6/15/78	2	2	8135	25.0	28.1	2150		1120	
2	6/15/78	2	6	5548	27.3	31.2				
2	6/15/78	2	10	4012	39.7	32.2	2980		1320	
2	6/20/78		57	10018	43.1	24.1	1730	0.46	918	0.04
2	6/20/78	1	0	9603	50.4	24.7	2450		1090	
2	6/20/78	1	3	16300	37.3	27.3	2000	0.44	1110	0.10
2	6/20/78	1	5	12133	45.2	25.1	2080	0.64	1080	0.08
2	6/20/78	1	7	10602	37.7	26.0		0.81		0.09
2	6/20/78	1	10	8712	31.5	25.6				
2	6/20/78	1	14	5306	52.7	28.0	2750		1220	
2	6/20/78	1	27	3428	38.7	32.8	2920		1410	

TABLE F5-3. NUTRIENT CONCENTRATIONS IN SEDIMENT AND KJELDAHL-N AND TOTAL-P IN SOLUTION FOR SELECTED SAMPLES FOR SITES 4 AND 8

SITE	DATE	HOUR	MIN	SEDT CONC	EXT-N	AVL-P	KJELDAHL-N SEDT	KJELDAHL-N WATER	TOTAL-P SEDT	TOTAL-P WATER
				PPM						
4	5/29/76	12	30	12322	4.9	46.8				
4	8/15/77	23	7	1384		231.3				
4	8/15/77	23	56	1877		214.7				
4	8/16/77	1	28	837		96.1				
4	8/16/77	2	25	533		56.0				
4	8/16/77	8	1	1328		147.3				
4	8/16/77	11	18	831		146.8				
4	3/19/78	20	6	1126		67.8	2830		1460	
4	3/20/78	13	50	948		54.8	2540		1400	
4	3/20/78	19	20	770		67.5	2615		1405	
4	3/21/78	14	6	1001		51.8	2510		1330	
4	3/21/78	19	37	2838	46.5	59.6	2710		1410	
4	3/22/78	2	20	876		65.0	2620		1420	
4	4/ 9/78	21	16	2872	34.0	46.4	2540	0.31	1320	0.08
4	4/ 9/78	23	20	11068	63.8	46.8	3040	0.70	1530	0.20
4	4/10/78	4	32	1404		47.3	2920	0.60	1480	0.32
4	4/17/78	19	8	2935		47.4	2580	0.54	1360	0.23
4	4/18/78		17	2834	39.0	53.0	2960	0.59	1550	0.38
4	4/18/78	4	47	8219	73.7	43.1	2470	0.49	1290	0.20
4	4/18/78	11	50	1973	48.1	50.8	2720	0.57	1360	0.26
4	4/18/78	15	28	841	21.9	47.4	2420	0.53	1180	0.23
4	4/18/78	18	26	867			2900	0.58	1320	0.17
4	4/18/78	21	3	789			2420	0.49	1190	0.12
4	6/ 1/78	18	35	783			2830	0.36	1380	0.05
4	6/15/78	6	40	6426	47.4	34.3	2680	0.44	1380	0.05
4	6/15/78	8	40	5921	61.4	38.7	2670	0.49	1360	0.09
4	6/15/78	10	52	3621	58.4	39.6	2840	0.79	1550	0.15
4	6/15/78	14	14	1335			3030	0.85	1460	0.11
4	6/20/78	3	0	1578		36.0	3140	0.35	1440	0.06
4	6/20/78	5	43	6803	58.5	38.0		0.38	1110	0.04
4	6/20/78	7	30	10749	49.6	34.8	2800	0.73	1220	0.10
4	6/20/78	8	59	7990	37.0	35.0	3180	0.72	1420	0.10
4	6/20/78	10	46	4084	69.2	35.2	2910	0.71	1470	0.11
4	6/20/78	14	17	1037		34.3	2650	0.69	1330	0.09

SITE	DATE	HOUR	MIN	CONC	EXT-N	AVL-P	KJELDAHL-N SEDT	KJELDAHL-N WATER	TOTAL-P SEDT	TOTAL-P WATER
				PPM						
8	4/19/77	17	31	86444	134.4	36.9				
8	4/19/77	17	34	75334	193.1	45.8				
8	4/19/77	17	41	48881	103.7	32.6				
8	4/19/77	18	0	29654	377.8	78.1				
8	4/19/77	18	23	19603	272.7	73.6				

APPENDIX G

PESTICIDE MEASUREMENTS

TABLE G1- 1. FOUR MILE CREEK WATERSHED HERBICIDE MEASUREMENTS IN VOLUME SOIL SAMPLES FOR 1976 SITE 1 -- SOYBEANS

SITE	DATE	LOC	SAMPLE WT. GM	H2O %	METRIBUZIN PPM	METRIBUZIN KG/HA	ALACHLOR PPM	ALACHLOR KG/HA	PARAQUAT PPM	PARAQUAT KG/HA
1	5/20/76	1A	2303	9.2	0.38	0.21	4.64	2.53	2.54	1.38
1	5/20/76	1B	2400	9.3	0.42	0.24	4.48	2.54	2.62	1.49
1	5/20/76	2	1943	7.7	0.18	0.08	3.07	1.41	2.05	0.94
1	5/20/76	3	2655	17.3	0.29	0.18	3.34	2.10	2.64	1.66
1	5/20/76	4	2652	16.1	0.19	0.12	2.84	1.78	1.77	1.11
1	5/20/76	5	2581	16.0	0.34	0.20	3.77	2.27	2.20	1.33
1	5/20/76	6	3416	14.2	0.14	0.12	1.28	1.04	1.57	1.27
1	5/20/76	7	2896	19.1	0.14	0.09	2.44	1.67	1.99	1.37
1	5/20/76	8	2836	17.2	0.19	0.13	2.84	1.91	1.55	1.04
1	5/20/76	9	2471	11.8	0.17	0.10	2.82	1.65	1.96	1.14
1	5/20/76	10	2505	11.4	0.16	0.10	2.31	1.37	1.92	1.14
1	5/20/76	11	2782	15.7	0.23	0.15	2.37	1.56	1.74	1.14
	MEAN					0.14		1.82		1.25
	STANDARD DEVIATION					0.05		0.47		0.20
1	5/21/76	1	2197	13.5	0.40	0.21	4.74	2.46	3.02	1.57
1	5/21/76	2A	2701	6.2	0.20	0.13	2.27	1.45	1.41	0.90
1	5/21/76	2B	2656	8.9	0.22	0.14	2.80	1.76	1.76	1.10
1	5/21/76	3	2634	16.5	0.26	0.16	3.49	2.18	2.50	1.56
1	5/21/76	4	2279	8.2	0.28	0.15	2.57	1.38	1.62	0.87
1	5/21/76	5	3154	13.4	0.19	0.14	2.81	2.09	1.90	1.42
1	5/21/76	6	2318	10.3	0.27	0.15	3.01	1.65	1.27	0.70
1	5/21/76	7	2408	15.9	0.31	0.17	3.19	1.81	1.80	1.02
1	5/21/76	8	2304	16.1	0.34	0.18	4.24	2.31	1.53	0.83
1	5/21/76	9	2303	10.5	0.27	0.15	3.43	1.87	1.47	0.80
1	5/21/76	10	2377	10.2	0.67	0.38	4.66	2.63	2.76	1.55
1	5/21/76	11	2537	15.2	0.28	0.17	2.76	1.66	2.07	1.24
	MEAN					0.18		1.94		1.13
	STANDARD DEVIATION					0.07		0.40		0.33
1	5/23/76	1	2326	28.5	0.40	0.22	1.46	0.81	3.08	1.70
1	5/23/76	2	2344	30.2	0.34	0.19	1.24	0.69	2.93	1.62
1	5/23/76	3A	2347	30.5	0.30	0.17	1.60	0.89	2.94	1.63
1	5/23/76	3B	2649	29.9	0.40	0.25	1.85	1.16	2.60	1.63
1	5/23/76	4	2678	29.2	0.28	0.18	1.65	1.04	2.13	1.35
1	5/23/76	5	2302	28.1	0.57	0.31	2.37	1.29	3.15	1.71
1	5/23/76	6	2665	28.1	0.29	0.18	1.65	1.04	1.89	1.19
1	5/23/76	7	2509	31.5	0.38	0.23	1.56	0.92	2.73	1.62
1	5/23/76	8	2643	28.8	0.46	0.29	2.22	1.39	2.78	1.74
1	5/23/76	9	2393	28.1	0.38	0.22	2.63	1.49	2.77	1.57
1	5/23/76	10	2217	26.7	0.48	0.25	2.38	1.25	2.68	1.51
1	5/23/76	11	2445	28.8	0.54	0.31	3.32	1.92	2.77	1.60
	MEAN					0.23		1.16		1.57
	STANDARD DEVIATION					0.05		0.34		0.16

SITE	DATE	LOC	SAMPLE WT. GM	H2O %	METRIBUZIN PPM	METRIBUZIN KG/HA	ALACHLOR PPM	ALACHLOR KG/HA	PARAQUAT PPM	PARAQUAT KG/HA
1	5/24/76	1	2639	24.4	0.46	0.29	2.94	1.83	2.99	1.86
1	5/24/76	2	2495	26.2	0.24	0.14	1.96	1.15	2.33	1.37
1	5/24/76	3	2664	26.2	0.21	0.14	2.67	1.68	2.81	1.77
1	5/24/76	4A	2735	25.2	0.31	0.20	2.39	1.54	2.35	1.52
1	5/24/76	4B	2515	25.0	0.62	0.43	4.76	3.28	2.09	1.44
1	5/24/76	5	2534	24.6	0.26	0.16	2.19	1.31	1.90	1.14
1	5/24/76	6	2991	24.7	0.32	0.22	2.90	2.05	2.81	1.98
1	5/24/76	7	2700	26.4	0.23	0.15	2.36	1.61	1.71	1.09
1	5/24/76	8	2769	24.5	0.19	0.13	1.90	1.25	1.46	0.96
1	5/24/76	9	2631	24.3	0.34	0.21	2.31	1.43	1.49	0.93
1	5/24/76	10	2730	21.9	0.24	0.16	2.41	1.55	2.16	1.40
1	5/24/76	11	2944	24.2	0.42	0.29	3.17	2.21	2.71	1.89
	MEAN					0.21		1.73		1.45
	STANDARD DEVIATION					0.09		0.58		0.37
1	5/26/76	1	2631	19.8	0.26	0.16	3.63	2.39	2.46	1.53
1	5/26/76	2	2199	18.7	0.27	0.14	3.15	1.64	3.17	1.13
1	5/26/76	3	2917	18.1	0.27	0.19	2.99	2.06	2.07	1.43
1	5/26/76	4	2628	18.2	0.24	0.15	2.35	1.46	2.36	1.47
1	5/26/76	5A	2855	19.4	0.14	0.09	1.81	1.22	1.55	1.05
1	5/26/76	5B	2828	18.7	0.31	0.21	2.25	1.50	1.78	1.19
1	5/26/76	6	2743	19.1	0.77	0.50	3.01	1.95	3.01	1.95
1	5/26/76	7	2826	17.9	0.18	0.12	2.46	1.64	1.71	1.14
1	5/26/76	8	2497	19.1	0.23	0.14	2.88	1.76	2.47	1.46
1	5/26/76	9	2507	18.5	0.22	0.13	2.58	1.53	1.90	1.12
1	5/26/76	10	2518	18.5	0.30	0.18	3.23	1.92	2.54	1.51
1	5/26/76	11	3080	18.4	0.18	0.13	2.34	1.70	1.60	1.16
	MEAN					0.18		1.73		1.34
	STANDARD DEVIATION					0.11		0.31		0.26
1	5/26/76	1	2861	17.0	0.15	0.10	2.36	1.60	2.31	1.56
1	5/28/76	2	2665	17.2	0.25	0.18	3.55	2.23	2.19	1.38
1	5/28/76	3	2532	16.5	0.24	0.15	4.34	2.60	1.95	1.17
1	5/28/76	4	2737	16.9	0.25	0.19	4.31	2.79	1.90	1.23
1	5/28/76	5	2691	15.8	0.28	0.18	3.95	2.52	1.49	0.95
1	5/28/76	6A	2856	17.5	0.21	0.14	5.08	3.43	1.59	1.07
1	5/28/76	6B	2292	15.8	0.35	0.19	5.01	2.71	2.59	1.40
1	5/28/76	7	2651	17.6	0.09	0.06	5.01	3.14	1.79	1.12
1	5/28/76	8	2790	18.0	0.14	0.09	5.36	3.53	1.83	1.21
1	5/28/76	9	2356	15.4	0.25	0.16	6.46	3.60	2.13	1.19
1	5/28/76	10	2975	16.9	0.15	0.13	7.07	4.97	1.70	1.19
1	5/28/76	11	2529	16.2	0.19	0.11	1.59	0.95	1.92	1.15
	MEAN					0.14		2.84		1.22
	STANDARD DEVIATION					0.04		1.03		0.16

TABLE G1- 2. FOUR MILE CREEK WATERSHED HERBICIDE MEASUREMENTS IN VOLUME SOIL SAMPLES FOR 1976 SITE 2 -- CORN

SITE	DATE	LOC	SAMPLE WT. GM	H2O %	PROPACHLOR PPM	PROPACHLOR KG/HA	CYANAZINE PPM	CYANAZINE KG/HA	PARAQUAT PPM	PARAQUAT KG/HA
2	4/29/76	1A	1648	21.0	2.84	1.11	3.81	1.49	2.20	0.86
2	4/29/76	1B	1834	20.4	2.77	1.20	3.79	1.64	2.50	1.09
2	4/29/76	2A	1978	19.7	2.99	1.30	3.05	1.43	1.68	0.78
2	4/29/76	2B	1896	19.4	2.87	1.28	3.28	1.47	1.79	0.80
2	4/29/76	3A	1940	23.9	1.98	0.91	3.53	1.62	1.88	0.86
2	4/29/76	3B	1931	23.3	2.53	1.15	1.42	0.65	2.11	0.97
2	4/29/76	4A	1597	19.3	3.46	1.31	3.56	1.34	2.62	0.99
2	4/29/76	4B	1865	19.9	3.60	1.59	3.92	1.73	2.07	0.91
2	4/29/76	5A	1919	16.5	2.74	1.24	2.62	1.19	1.88	0.85
2	4/29/76	5B	1559	16.1	3.65	1.35	3.27	1.21	2.51	0.93
2	4/29/76	6A	1569	17.2	2.75	1.02	2.87	1.07	2.09	0.77
2	4/29/76	6B	1634	17.2	3.81	1.47	4.16	1.61	2.54	0.98
2	4/29/76	7A	1795	18.5	2.55	1.08	2.78	1.18	1.93	0.82
2	4/29/76	7B	1811	19.1	2.92	1.25	3.10	1.33	1.80	0.77
2	4/29/76	8A	1224	16.5	3.51	1.01	3.51	1.01	2.17	0.63
2	4/29/76	8B	1357	16.3	4.44	1.43	4.77	1.53	2.21	0.71
2	4/29/76	9A	2239	19.2	1.92	1.02	3.23	1.71	1.89	1.00
2	4/29/76	9B	1976	17.7	1.66	0.78	2.87	1.34	1.35	0.63
2	4/29/76	10A	1861	14.1	2.53	1.11	3.87	1.70	3.14	1.38
2	4/29/76	10B	2416	17.4	1.13	0.64	2.26	1.29	2.35	1.34
2	4/29/76	11A	1844	18.7	1.90	0.83	3.94	1.72	0.77	0.34
2	4/29/76	11B	1352	15.1	1.97	0.83	3.79	1.21	2.65	0.85
		MEAN				1.13		1.38		0.88
		STANDARD DEVIATION				0.26		0.28		0.22

SITE	DATE	LOC	SAMPLE WT. GM	H2O %	PROPACHLOR PPM	PROPACHLOR KG/HA	CYANAZINE PPM	CYANAZINE KG/HA	PARAQUAT PPM	PARAQUAT KG/HA
2	5/ 1/76	1	1929	18.5	3.08	1.41	4.22	1.92	2.55	1.16
2	5/ 1/76	2A	2090	16.4	2.62	1.29	3.26	1.61	1.86	0.92
2	5/ 1/76	2B	1682	18.1	2.66	1.06	4.43	1.76	2.13	0.85
2	5/ 1/76	3	1705	23.6	3.09	1.25	4.73	1.91	3.40	1.37
2	5/ 1/76	4	1842	17.8	3.83	1.67	4.25	1.85	2.56	1.12
2	5/ 1/76	5	1636	16.5	2.16	0.83	3.09	1.19	2.21	0.86
2	5/ 1/76	6	1857	18.5	2.30	1.01	3.73	1.64	2.16	0.95
2	5/ 1/76	7	2167	18.6	1.01	0.52	2.61	1.34	1.69	0.87
2	5/ 1/76	8	2012	16.3	2.18	1.04	3.99	1.90	1.80	0.86
2	5/ 1/76	9	1675	16.3	3.50	1.39	4.88	1.94	2.30	0.91
2	5/ 1/76	10	2292	17.6	1.81	0.98	2.90	1.57	1.65	0.89
2	5/ 1/76	11	1762	18.6	3.50	1.46	5.80	2.42	2.02	0.84
		MEAN				1.16		1.75		0.97
		STANDARD DEVIATION				0.31		0.32		0.17
2	5/ 3/76	1	2976	26.9	1.59	1.12	3.29	2.32	2.13	1.50
2	5/ 3/76	2	2625	24.6	1.73	1.07	3.54	2.20	1.84	1.14
2	5/ 3/76	3A	2202	28.1	0.96	0.50	2.75	1.43	1.76	0.92
2	5/ 3/76	3B	2367	27.2	1.77	0.99	3.97	2.22	1.65	0.93
2	5/ 3/76	4	2459	24.8	1.82	1.06	3.10	1.80	1.56	0.91
2	5/ 3/76	5	2344	23.2	1.57	0.87	3.10	1.72	2.19	1.21
2	5/ 3/76	6	2406	24.2	1.32	0.75	3.23	1.84	2.67	1.52
2	5/ 3/76	7	2698	24.2	1.49	0.95	2.98	1.90	1.83	1.17
2	5/ 3/76	8	2456	24.2	1.55	0.90	2.74	1.59	1.61	0.94
2	5/ 3/76	9	2435	23.7	4.48	2.58	6.33	3.65	3.00	1.73
2	5/ 3/76	10	2868	21.7	2.04	1.39	3.12	2.11	1.55	1.05
2	5/ 3/76	11	2591	24.8	2.45	1.60	4.34	2.66	1.84	1.13
		MEAN				1.14		2.12		1.18
		STANDARD DEVIATION				0.52		0.59		0.27

SITE	DATE	LOC	SAMPLE WT. GM	H2O %	PROPACHLOR PPM	PROPACHLOR KG/HA	CYANAZINE PPM	CYANAZINE KG/HA	PARAQUAT PPM	PARAQUAT KG/HA
2	4/30/76	1A	1965	19.1	2.19	1.01	3.53	1.62	2.50	1.15
2	4/30/76	1B	2341	21.2	1.51	0.84	1.90	1.05	2.00	1.11
2	4/30/76	2	1614	18.2	4.29	1.64	4.85	1.85	2.78	1.06
2	4/30/76	3	1957	25.7	1.18	0.55	1.91	0.88	2.77	1.28
2	4/30/76	4	1949	20.8	1.98	0.91	3.24	1.49	2.05	0.95
2	4/30/76	5	1833	18.6	1.47	0.64	2.86	1.24	2.49	1.08
2	4/30/76	6	1979	19.6	1.55	0.73	3.56	1.67	2.39	1.12
2	4/30/76	7	1984	18.9	1.63	0.77	3.23	1.52	2.44	1.14
2	4/30/76	8	2050	20.4	3.31	1.61	5.60	2.71	3.07	1.49
2	4/30/76	9	2316	19.9	1.40	0.77	2.94	1.61	2.28	1.25
2	4/30/76	10	2081	18.2	1.67	0.82	3.43	1.69	2.13	1.05
2	4/30/76	11	2151	20.6	1.28	0.65	2.79	1.42	2.29	1.17
		MEAN				0.91		1.56		1.15
		STANDARD DEVIATION				0.35		0.46		0.14

SITE	DATE	LOC	SAMPLE WT. GM	H2O %	PROPACHLOR PPM	PROPACHLOR KG/HA	CYANAZINE PPM	CYANAZINE KG/HA	PARAQUAT PPM	PARAQUAT KG/HA
2	5/ 5/76	1	2544	23.1	1.32	0.80	2.49	1.50	1.60	0.96
2	5/ 5/76	2	2553	20.6	1.66	1.00	3.26	1.97	1.57	0.95
2	5/ 5/76	3	2385	26.1	0.98	0.55	2.71	1.53	1.78	1.01
2	5/ 5/76	4A	2631	22.6	1.16	0.72	2.39	1.49	1.41	0.88
2	5/ 5/76	4B	2774	22.7	1.29	0.84	2.73	1.79	1.47	0.97
2	5/ 5/76	5	2699	20.9	1.39	0.89	3.05	1.95	1.91	1.22
2	5/ 5/76	6	2691	22.7	1.01	0.64	2.27	1.44	1.51	0.96
2	5/ 5/76	7	2687	21.4	1.18	0.75	2.52	1.60	1.78	1.13
2	5/ 5/76	8	2677	22.4	1.68	1.07	2.88	1.82	2.06	1.30
2	5/ 5/76	9	2896	20.6	1.39	0.95	2.92	2.00	1.63	1.11
2	5/ 5/76	10	3139	19.3	1.10	0.82	2.54	1.88	1.77	1.31
2	5/ 5/76	11	2718	21.7	0.74	0.48	2.19	1.41	1.74	1.12
		MEAN				0.79		1.78		1.08
		STANDARD DEVIATION				0.18		0.22		0.15

TABLE G1- 2. CONCLUDED

SITE	DATE	LCC	SAMPLE WT. GM	H2O %	PROPACHLOR PPM	PROPACHLOR KG/HA	CYANAZINE PPM	CYANAZINE KG/HA	PARAQUAT PPM	PARAQUAT KG/HA
2	5/ 7/76	1	2585	21.7	1.01	0.99	2.42	1.48	2.15	1.31
2	5/ 7/76	2	3053	17.8	1.83	1.32	2.34	1.69	1.71	1.23
2	5/ 7/76	3	2311	25.2	2.13	1.15	3.60	1.97	1.88	1.03
2	5/ 7/76	4	2716	21.9	2.04	1.31	2.80	1.80	1.66	1.07
2	5/ 7/76	5A	2519	19.8	1.44	0.86	2.02	1.20	1.18	0.70
2	5/ 7/76	5B	2843	20.5	1.33	0.89	2.07	1.39	1.57	1.05
2	5/ 7/76	6	2725	21.1	1.54	0.99	3.03	1.95	1.90	1.22
2	5/ 7/76	7	2550	20.7	1.63	0.98	2.61	1.58	1.89	1.14
2	5/ 7/76	8	2596	22.0	1.95	1.20	3.08	1.89	2.44	1.50
2	5/ 7/76	9	2487	18.9	1.75	1.03	2.97	1.75	2.10	1.23
2	5/ 7/76	10	2940	17.5	1.64	1.14	2.06	1.43	1.49	1.03
2	5/ 7/76	11	2697	21.0	1.60	1.06	2.22	1.42	1.81	1.16
	MEAN					1.08		1.63		1.14
	STANDARD DEVIATION					0.16		0.25		0.19
2	5/10/76	1	2493	19.1	1.70	1.00	2.68	1.58	1.61	0.95
2	5/10/76	2	2947	17.5	2.82	1.96	3.43	2.39	1.86	1.29
2	5/10/76	3	2573	21.6	2.92	1.78	3.34	2.03	2.58	1.57
2	5/10/76	4	2812	19.2	1.79	1.19	2.72	1.81	1.22	0.81
2	5/10/76	5	2901	18.3	1.69	1.16	2.66	1.83	2.04	1.40
2	5/10/76	6	2512	19.5	1.52	0.91	2.69	1.60	2.24	1.33
2	5/10/76	7	2841	18.5	1.45	0.98	2.81	1.89	1.69	1.13
2	5/10/76	8	2923	19.9	1.29	0.89	1.89	1.31	1.47	1.02
2	5/10/76	9	3185	17.6	1.71	1.28	2.06	1.58	2.03	1.53
2	5/10/76	10	3132	15.9	1.39	1.03	2.13	1.57	1.51	1.12
2	5/10/76	11A	2528	19.5	1.40	0.84	2.29	1.37	1.91	1.14
2	5/10/76	11B	2806	18.0	2.18	1.45	2.95	1.96	2.06	1.37
	MEAN					1.20		1.74		1.22
	STANDARD DEVIATION					0.36		0.30		0.23

TABLE G1- 3. FOUR MILE CREEK WATERSHED HERBICIDE MEASUREMENTS IN VOLUME SOIL SAMPLES FOR 1977 SITE 1 — CORN

SITE	DATE	LOC	SAMPLE WT. GM	H2O %	PROPACHLOR PPM	PROPACHLOR KG/HA	CYANAZINE PPM	CYANAZINE KG/HA	PARAQUAT PPM	PARAQUAT KG/HA
1	5/ 3/77	1A	2496	15.4	2.85	1.68	5.48	3.24	2.74	1.62
1	5/ 3/77	1B	2558	14.9	2.86	1.73	7.18	4.34	2.61	1.58
1	5/ 3/77	2	2586	18.7	3.05	1.86	8.01	4.90	3.20	1.96
1	5/ 3/77	3	2736	20.1	2.16	1.40	4.95	3.20	3.05	1.97
1	5/ 3/77	4	2529	17.2	2.64	1.58	6.45	3.86	2.67	1.59
1	5/ 3/77	5	2709	16.5	2.91	1.87	7.28	4.66	3.53	2.26
1	5/ 3/77	6	3211	16.1	3.25	2.47	8.42	6.39	3.72	2.82
1	5/ 3/77	7	2737	15.3	2.42	1.57	6.34	4.10	2.91	1.88
1	5/ 3/77	8	2727	16.8	2.86	1.84	6.54	4.22	3.09	2.00
1	5/ 3/77	9	2671	17.5	3.82	2.32	8.32	5.06	3.54	2.15
1	5/ 3/77	10	3199	17.6	2.23	1.69	4.86	3.45	2.35	1.78
1	5/ 3/77	11	2860	17.8	2.10	1.42	4.42	2.99	3.18	2.15
		MEAN				1.79		4.20		1.98
		STANDARD DEVIATION				0.33		0.97		0.35
1	5/ 4/77	1	2784	27.6	2.67	1.76	4.15	2.73	3.25	2.14
1	5/ 4/77	2A	2668	28.7	2.42	1.53	3.86	2.43	3.83	2.41
1	5/ 4/77	2B	2439	28.6	2.42	1.39	4.37	2.52	4.18	2.41
1	5/ 4/77	3	2733	30.1	1.80	1.16	2.44	1.58	3.58	2.31
1	5/ 4/77	4	2440	27.0	1.13	0.65	1.90	1.10	2.63	1.52
1	5/ 4/77	5	2588	27.1	2.16	1.32	4.07	2.49	3.46	2.12
1	5/ 4/77	6	2906	25.8	2.72	1.37	4.24	2.92	3.40	2.33
1	5/ 4/77	7	2622	27.6	2.12	1.31	4.46	2.77	2.97	1.84
1	5/ 4/77	8	2504	26.7	1.63	0.96	4.64	2.75	3.63	2.15
1	5/ 4/77	9	2595	28.1	2.81	1.72	5.38	3.30	4.13	2.53
1	5/ 4/77	10	2551	27.0	2.40	1.45	5.56	3.35	3.62	2.18
1	5/ 4/77	11	2704	28.5	2.73	1.75	4.66	2.98	3.63	2.32
		MEAN				1.41		2.58		2.19
		STANDARD DEVIATION				0.36		0.65		0.28
1	5/ 5/77	1	2860	26.6	1.84	1.24	5.06	3.42	3.13	2.12
1	5/ 5/77	2	2887	26.4	1.52	1.04	4.42	3.02	3.32	2.27
1	5/ 5/77	3A	2759	28.2	1.51	0.98	4.10	2.68	3.97	2.59
1	5/ 5/77	3B	2852	28.9	1.03	0.70	3.03	2.04	3.38	2.28
1	5/ 5/77	4	3024	27.2	1.34	0.96	4.14	2.96	3.15	2.25
1	5/ 5/77	5	2594	25.4	1.76	1.08	4.64	2.85	3.51	2.15
1	5/ 5/77	6	2680	26.9	1.33	0.84	3.43	2.17	3.40	2.15
1	5/ 5/77	7	2708	26.6	1.14	0.73	2.98	1.90	3.64	2.33
1	5/ 5/77	8	3072	27.8	1.79	1.30	4.86	3.53	3.61	2.62
1	5/ 5/77	9	2764	28.0	2.24	1.46	6.66	4.35	4.22	2.76
1	5/ 5/77	10	2678	26.8	1.24	0.78	4.31	2.73	3.71	2.35
1	5/ 5/77	11	2829	28.2	1.96	1.31	5.77	3.86	4.33	2.89
		MEAN				1.03		2.96		2.40
		STANDARD DEVIATION				0.25		0.74		0.26

SITE	DATE	LOC	SAMPLE WT. GM	H2O %	PROPACHLOR PPM	PROPACHLOR KG/HA	CYANAZINE PPM	CYANAZINE KG/HA	PARAQUAT PPM	PARAQUAT KG/HA
1	5/ 6/77	1	2641	24.2	2.36	1.47	5.53	3.45	3.01	1.88
1	5/ 6/77	2	2589	26.1	1.21	0.76	4.29	2.63	3.56	2.18
1	5/ 6/77	3	2795	27.3	0.86	0.57	2.86	1.89	3.09	2.04
1	5/ 6/77	4A	2762	25.6	0.94	0.61	3.64	2.38	2.80	1.83
1	5/ 6/77	4B	2878	26.5	0.77	0.53	4.52	3.08	3.19	2.17
1	5/ 6/77	5	2828	25.2	1.56	1.05	5.04	3.37	3.79	2.53
1	5/ 6/77	6	2828	24.2	1.43	0.96	4.94	3.30	3.26	2.18
1	5/ 6/77	7	2907	25.1	1.28	0.88	5.13	3.53	3.16	2.17
1	5/ 6/77	8	2560	24.6	1.93	1.17	13.38	8.10	4.08	2.47
1	5/ 6/77	9	2790	27.1	1.91	1.26	10.91	7.20	3.72	2.45
1	5/ 6/77	10	2704	25.7	1.32	0.84	9.74	6.23	3.80	2.43
1	5/ 6/77	11	2934	27.9	1.02	0.71	6.52	4.53	3.13	2.17
		MEAN				0.90		4.14		2.21
		STANDARD DEVIATION				0.29		1.98		0.23
1	5/ 7/77	1	3363	23.8	0.94	0.75	4.64	3.69	2.51	1.99
1	5/ 7/77	2	3166	22.8	1.28	0.96	5.37	4.02	3.56	2.67
1	5/ 7/77	3	2863	22.7	1.51	1.02	4.22	2.86	3.37	2.28
1	5/ 7/77	4	2954	22.0	1.36	0.95	4.39	3.07	2.87	2.00
1	5/ 7/77	5A	3306	21.0	1.21	0.95	4.42	3.45	2.36	1.84
1	5/ 7/77	5B	2960	21.0	1.12	0.78	3.63	2.84	2.75	1.93
1	5/ 7/77	6	2916	21.5	1.14	0.78	3.64	2.51	3.13	2.16
1	5/ 7/77	7	2937	21.9	1.06	0.74	3.47	2.41	2.56	1.78
1	5/ 7/77	8	2957	22.1	1.04	0.73	3.48	2.43	2.99	2.09
1	5/ 7/77	9	2705	23.5	1.45	0.93	4.82	3.08	3.55	2.27
1	5/ 7/77	10	2738	22.2	1.37	0.89	5.80	3.76	3.42	2.21
1	5/ 7/77	11	3153	22.9	1.86	1.39	5.96	4.45	4.12	3.07
		MEAN				0.90		3.19		2.19
		STANDARD DEVIATION				0.18		0.68		0.36
1	5/ 9/77	1	2812	19.3	1.47	0.98	2.73	1.81	2.95	1.96
1	5/ 9/77	2	2644	19.7	0.95	0.60	2.85	1.78	3.92	2.45
1	5/ 9/77	3	2689	19.7	1.32	0.84	2.00	1.27	3.02	1.92
1	5/ 9/77	4	2323	19.3	1.40	0.77	2.93	1.61	3.67	2.01
1	5/ 9/77	5	2813	19.2	0.77	0.52	2.88	1.91	3.78	2.52
1	5/ 9/77	6A	2757	18.8	1.53	1.00	3.02	1.97	3.68	2.40
1	5/ 9/77	6B	2842	19.1	0.74	0.50	2.74	1.84	3.54	2.38
1	5/ 9/77	7	2746	19.2	1.65	1.07	4.97	3.23	4.05	2.63
1	5/ 9/77	8	3156	18.4	1.75	1.31	5.75	4.29	3.23	2.41
1	5/ 9/77	9	2985	19.6	1.63	1.15	4.65	3.28	3.20	2.26
1	5/ 9/77	10	2673	19.0	0.89	0.56	4.21	2.66	3.72	2.35
1	5/ 9/77	11	2864	20.7	0.44	0.30	2.09	1.41	2.73	1.85
		MEAN				0.80		2.26		2.26
		STANDARD DEVIATION				0.31		0.91		0.26

TABLE G1- 3. CONCLUDED

SITE	DATE	LOC	SAMPLE WT. GM	H2O %	PROPACHLOR PPM	PROPACHLOR KG/HA	CYANAZINE PPM	CYANAZINE KG/HA	PARAQUAT PPM	PARAQUAT KG/HA
1	5/11/77	1	2762	16.2	1.86	1.21	5.06	3.30	2.41	1.57
1	5/11/77	2	2667	16.4	2.47	1.56	9.89	6.24	3.67	2.31
1	5/11/77	3	2929	18.2	1.96	1.36	8.99	6.22	3.22	2.23
1	5/11/77	4	2501	16.7	3.11	1.84	13.81	8.16	5.60	3.31
1	5/11/77	5	2668	16.7	1.23	0.77	9.63	6.08	2.63	1.66
1	5/11/77	6	2823	16.8	1.64	1.09	5.49	3.67	3.68	2.46
1	5/11/77	7A	2695	18.5	1.30	0.83	7.11	4.53	2.16	1.38
1	5/11/77	7B	2800	19.4	1.24	0.82	6.63	4.39	2.78	1.84
1	5/11/77	8	2863	17.4	0.95	0.64	4.90	3.32	2.36	1.60
1	5/11/77	9	2649	17.2	3.03	1.90	9.14	5.73	3.31	2.07
1	5/11/77	10	2571	18.1	1.31	0.79	8.15	4.95	3.10	1.88
1	5/11/77	11	2964	19.2	1.39	0.98	8.35	5.85	3.16	2.21
	MEAN					1.15		5.20		2.04
	STANDARD DEVIATION					0.43		1.45		0.52
1	5/13/77	1	2836	15.7	1.26	0.84	8.10	5.43	3.65	2.44
1	5/13/77	2	2981	17.2	0.94	0.66	6.15	4.34	3.46	2.44
1	5/13/77	3	2877	18.1	1.10	0.75	7.44	5.06	3.60	2.45
1	5/13/77	4	2721	15.0	1.35	0.87	8.51	5.47	2.64	1.70
1	5/13/77	5	2579	15.4	0.68	0.41	6.23	3.80	3.15	1.92
1	5/13/77	6	3188	15.7	0.48	0.36	3.70	2.79	2.57	1.94
1	5/13/77	7	2763	17.3	0.53	0.35	5.31	3.47	3.58	2.34
1	5/13/77	8A	2360	17.8	1.31	0.88	8.66	5.86	3.24	2.19
1	5/13/77	8B	2636	16.1	0.57	0.35	4.06	2.53	3.11	1.94
1	5/13/77	9	2645	16.6	0.93	0.58	8.40	5.25	3.88	2.42
1	5/13/77	10	2646	16.2	0.91	0.57	7.14	4.47	3.83	2.40
1	5/13/77	11	2843	17.0	0.91	0.61	7.37	4.95	3.74	2.52
	MEAN					0.60		4.45		2.22
	STANDARD DEVIATION					0.20		1.09		0.28
1	5/16/77	1	2798	18.0	0.91	0.60	3.81	2.52	3.69	2.44
1	5/16/77	2	3337	13.8	1.71	1.35	3.98	3.14	3.10	2.45
1	5/16/77	3	2856	18.9	0.62	0.42	3.43	2.32	3.70	2.50
1	5/16/77	4	2822	16.3	1.37	0.91	5.55	3.70	2.82	1.88
1	5/16/77	5	2479	16.5	1.17	0.68	4.61	2.70	3.23	1.90
1	5/16/77	6	2530	15.3	0.58	0.34	3.36	2.01	3.32	1.98
1	5/16/77	7	2644	17.4	0.92	0.57	3.79	2.37	3.20	2.00
1	5/16/77	8	3042	16.7	0.85	0.61	4.04	2.90	2.87	2.07
1	5/16/77	9A	2799	18.4	1.84	1.22	5.47	3.62	3.17	2.10
1	5/16/77	9B	2641	15.1	1.24	0.78	4.65	2.90	2.79	1.74
1	5/16/77	10	2684	16.8	0.72	0.46	3.81	2.42	3.18	2.02
1	5/16/77	11	2975	16.9	1.26	0.88	4.95	3.48	3.10	2.18
	MEAN					0.74		2.84		2.10
	STANDARD DEVIATION					0.31		0.55		0.24
1	5/19/77	1	2742	11.9	1.43	0.92	6.66	4.32	2.80	1.81
1	5/19/77	2	2599	15.6	0.32	0.23	4.34	3.08	3.15	2.23
1	5/19/77	3	3873	20.4	0.22	0.20	1.32	1.21	2.86	2.62
1	5/19/77	4	2740	14.2	1.17	0.75	9.99	6.47	3.63	2.35
1	5/19/77	5	2555	14.1	0.53	0.32	6.39	3.86	3.48	2.10
1	5/19/77	6	2773	14.0	0.73	0.48	4.56	2.99	1.94	1.27
1	5/19/77	7	2705	14.8	0.47	0.30	2.44	1.56	3.00	1.92
1	5/19/77	8	2626	13.7	0.28	0.17	3.52	2.19	3.10	1.92
1	5/19/77	9	2581	14.3	0.81	0.50	5.09	3.10	3.54	2.16
1	5/19/77	10A	2695	13.4	0.39	0.25	3.35	2.13	3.18	2.02
1	5/19/77	10B	2456	13.6	0.53	0.31	6.25	3.63	3.44	2.00
1	5/19/77	11	3109	18.1	0.38	0.28	2.60	1.91	2.89	2.13
	MEAN					0.39		3.04		2.04
	STANDARD DEVIATION					0.23		1.44		0.33

TABLE G1- 4. FOUR MILE CREEK WATERSHED HERBICIDE MEASUREMENTS IN VOLUME SOIL SAMPLES FOR 1977 SITE 2 -- SOYBEANS

SITE	DATE	LOC	SAMPLE WT, GM	H2O %	METRIBUZIN PPM	METRIBUZIN KG/HA	ALACHLOR PPM	ALACHLOR KG/HA	PARAQUAT PPM	PARAQUAT KG/HA
2	5/10/77	1A	2677	15.0	0.53	0.33	4.34	2.75	2.27	1.44
2	5/10/77	1B	2947	16.4	0.46	0.32	4.35	3.03	2.33	1.62
2	5/10/77	2	2514	13.7	0.43	0.25	4.37	2.60	2.10	1.25
2	5/10/77	3	2284	19.7	0.34	0.18	4.76	2.57	2.21	1.20
2	5/10/77	4	2996	18.7	0.17	0.12	3.55	2.52	2.25	1.60
2	5/10/77	5	2625	14.5	0.37	0.23	4.71	2.92	2.29	1.42
2	5/10/77	6	2819	15.2	0.32	0.22	4.56	3.04	1.99	1.32
2	5/10/77	7	2305	16.5	0.41	0.23	2.73	1.49	2.45	1.33
2	5/10/77	8	3130	14.3	0.33	0.25	4.21	3.12	1.91	1.42
2	5/10/77	9	3030	12.5	0.21	0.15	2.49	1.78	1.43	1.03
2	5/10/77	10	2638	11.1	0.34	0.21	3.31	2.07	1.67	1.04
2	5/10/77	11	2594	18.9	0.63	0.39	4.80	2.95	2.17	1.33
		MEAN				0.24		2.57		1.33
		STANDARD DEVIATION				0.08		0.53		0.19
2	5/11/77	1	2554	15.0	0.29	0.17	3.62	2.19	2.36	1.42
2	5/11/77	2A	2491	12.4	0.84	0.50	3.57	2.10	2.93	1.73
2	5/11/77	2B	2803	10.2	0.66	0.44	3.55	2.35	2.18	1.44
2	5/11/77	3	2283	18.2	0.83	0.45	4.85	2.62	2.57	1.39
2	5/11/77	4	2658	15.5	0.84	0.53	3.93	2.47	2.60	1.63
2	5/11/77	5	2879	16.2	0.96	0.65	4.36	2.97	2.56	1.74
2	5/11/77	6	2937	14.7	0.25	0.18	4.43	3.07	2.26	1.57
2	5/11/77	7	3005	17.0	0.44	0.31	2.63	1.87	1.93	1.37
2	5/11/77	8	2856	17.5	0.24	0.16	3.17	2.14	2.20	1.49
2	5/11/77	9	3190	13.7	0.34	0.26	2.27	1.71	1.79	1.35
2	5/11/77	10	2915	14.3	0.34	0.24	3.54	2.44	1.74	1.20
2	5/11/77	11	2886	17.3	0.26	0.18	3.28	2.24	2.20	1.50
		MEAN				0.34		2.35		1.49
		STANDARD DEVIATION				0.17		0.40		0.16
2	5/12/77	1	2991	16.1	0.71	0.50	3.63	2.57	2.15	1.52
2	5/12/77	2	2687	14.2	0.75	0.48	4.02	2.55	2.06	1.31
2	5/12/77	3A	2831	18.6	0.74	0.49	3.49	2.33	1.87	1.25
2	5/12/77	3B	2666	15.2	0.95	0.60	3.07	1.94	2.05	1.29
2	5/12/77	4	2761	15.5	0.70	0.46	3.39	2.22	1.99	1.30
2	5/12/77	5	2832	16.5	0.95	0.64	3.49	2.34	2.36	1.58
2	5/12/77	6	3319	17.6	0.72	0.56	3.86	3.03	2.44	1.92
2	5/12/77	7	3118	17.5	0.45	0.33	2.20	1.62	2.09	1.54
2	5/12/77	8	2910	17.4	0.65	0.45	2.32	1.60	1.66	1.14
2	5/12/77	9	3087	17.0	0.65	0.48	3.14	2.29	1.84	1.34
2	5/12/77	10	3060	16.1	0.69	0.50	3.34	2.42	2.00	1.45
2	5/12/77	11	2997	14.7	0.79	0.56	3.64	2.58	2.09	1.48
		MEAN				0.50		2.29		1.43
		STANDARD DEVIATION				0.08		0.41		0.20
2	5/13/77	1	2727	15.2	0.84	0.54	3.11	2.01	1.79	1.15
2	5/13/77	2	2982	13.7	0.48	0.34	2.27	1.60	1.90	1.34
2	5/13/77	3	2880	19.5	0.78	0.53	2.63	1.79	2.33	1.59
2	5/13/77	4A	2701	13.5	0.94	0.60	3.52	2.25	2.71	1.73
2	5/13/77	4B	2570	13.7	0.71	0.43	2.90	1.76	2.56	1.55
2	5/13/77	5	2858	14.7	0.46	0.31	4.64	3.14	2.26	1.53
2	5/13/77	6	2901	15.2	0.75	0.51	2.94	2.01	2.42	1.66
2	5/13/77	7	2584	14.5	0.52	0.31	2.41	1.47	1.89	1.15
2	5/13/77	8	2828	16.7	0.70	0.47	2.80	1.87	1.84	1.23
2	5/13/77	9	2983	15.0	0.62	0.43	2.47	1.74	1.79	1.27
2	5/13/77	10	2763	12.0	0.48	0.31	2.30	1.50	2.27	1.48
2	5/13/77	11	2749	16.0	0.78	0.51	3.59	2.34	2.38	1.54
		MEAN				0.44		1.96		1.44
		STANDARD DEVIATION				0.10		0.46		0.20
2	5/14/77	1	2877	14.6	0.94	0.64	3.78	2.57	2.26	1.54
2	5/14/77	2	2471	10.2	1.09	0.63	4.71	2.75	2.64	1.54
2	5/14/77	3	2425	19.6	0.52	0.30	3.08	1.77	2.51	1.44
2	5/14/77	4	2615	17.6	0.35	0.21	2.35	1.45	3.15	1.95
2	5/14/77	5A	2789	17.0	0.52	0.34	3.04	2.01	2.22	1.47
2	5/14/77	5B	2611	19.2	0.41	0.27	2.41	1.60	2.12	1.41
2	5/14/77	6	2140	17.7	0.52	0.27	3.27	1.65	2.44	1.24
2	5/14/77	7	2039	19.6	0.65	0.31	3.41	1.64	2.48	1.20
2	5/14/77	8	2165	20.2	0.60	0.31	3.42	1.75	2.31	1.18
2	5/14/77	9	2518	17.2	0.17	0.10	2.99	1.78	1.65	0.98
2	5/14/77	10	2421	14.2	0.29	0.17	3.31	1.90	2.28	1.31
2	5/14/77	11	2350	18.5	0.70	0.39	2.99	1.66	3.36	1.87
		MEAN				0.33		1.88		1.43
		STANDARD DEVIATION				0.16		0.39		0.28
2	5/16/77	1	2654	13.5	0.45	0.28	3.66	2.30	2.21	1.39
2	5/16/77	2	2753	13.8	0.65	0.43	2.96	1.93	2.28	1.48
2	5/16/77	3	2563	19.0	0.75	0.45	2.91	1.77	2.41	1.46
2	5/16/77	4	2950	18.2	0.54	0.38	2.36	1.65	2.31	1.61
2	5/16/77	5	3190	16.6	0.43	0.32	1.84	1.39	1.84	1.39
2	5/16/77	6A	3111	14.5	0.35	0.26	2.12	1.56	1.69	1.24
2	5/16/77	6B	2854	14.0	0.50	0.34	2.71	1.83	2.54	1.71
2	5/16/77	7	3149	17.7	0.36	0.27	1.43	1.07	1.85	1.38
2	5/16/77	8	3359	17.4	0.23	0.18	2.00	1.59	2.05	1.63
2	5/16/77	9	3066	16.0	0.23	0.16	1.94	1.41	1.80	1.30
2	5/16/77	10	2886	14.9	0.28	0.19	2.18	1.49	1.38	0.94
2	5/16/77	11	2577	18.2	0.84	0.51	3.75	2.29	2.92	1.78
		MEAN				0.31		1.69		1.44
		STANDARD DEVIATION				0.11		0.36		0.23

TABLE G1- 4. CONCLUDED

SITE	DATE	LCC	SAMPLE WT. GM	H2O %	METRIBUZIN PPM	METRIBUZIN KG/HA	ALACHLOR PPM	ALACHLOR KG/HA	PARAQUAT PPM	PARAQUAT KG/HA
2	5/18/77	1	3490	16.5	0.41	0.34	1.48	1.23	1.92	1.59
2	5/18/77	2	2778	12.5	0.83	0.54	3.49	2.29	1.97	1.29
2	5/18/77	3	3432	18.2	0.59	0.48	2.36	1.92	2.10	1.70
2	5/18/77	4	2706	16.6	0.55	0.35	2.10	1.34	2.07	1.32
2	5/18/77	5	3386	17.6	0.59	0.47	2.06	1.65	2.20	1.76
2	5/18/77	6	3109	14.8	0.32	0.23	1.81	1.33	1.81	1.33
2	5/18/77	7A	2878	13.8	0.54	0.37	1.68	1.14	2.22	1.51
2	5/18/77	7B	3099	15.1	0.35	0.26	1.04	0.76	2.04	1.50
2	5/18/77	8	3126	13.9	0.40	0.30	2.14	1.58	2.11	1.56
2	5/18/77	9	3285	13.1	0.47	0.36	1.64	1.27	2.01	1.56
2	5/18/77	10	3146	12.6	0.46	0.34	1.77	1.32	1.86	1.38
2	5/18/77	11	3177	19.5	0.48	0.36	1.64	1.23	2.36	1.77
	MEAN					0.37		1.42		1.52
	STANDARD DEVIATION					0.09		0.39		0.17
2	5/20/77	1	2918	15.3	0.12	0.08	2.08	1.43	1.96	1.35
2	5/20/77	2	2801	12.4	0.06	0.04	2.36	1.56	1.91	1.27
2	5/20/77	3	2470	20.0	0.22	0.13	3.15	1.84	2.70	1.58
2	5/20/77	4	2976	16.0	0.04	0.03	1.48	1.04	1.94	1.37
2	5/20/77	5	2988	13.9	0.50	0.35	2.73	1.93	2.02	1.43
2	5/20/77	6	2857	14.7	0.08	0.05	2.53	1.71	2.15	1.45
2	5/20/77	7	3031	15.1	0.02	0.01	1.32	0.95	1.38	0.99
2	5/20/77	8A	3199	23.6	0.11	0.08	2.29	1.73	1.79	1.36
2	5/20/77	8B	3185	12.6	0.16	0.12	2.01	1.52	1.69	1.27
2	5/20/77	9	2990	17.6	0.15	0.10	2.04	1.44	1.73	1.23
2	5/20/77	10	3206	16.5	0.17	0.13	1.63	1.24	1.75	1.32
2	5/20/77	11	2878	18.6	0.13	0.09	3.05	2.07	2.31	1.57
	MEAN					0.10		1.54		1.35
	STANDARD DEVIATION					0.09		0.34		0.16

TABLE G1- 5. FOUR MILE CREEK WATERSHED HERBICIDE MEASUREMENTS IN VOLUME SOIL SAMPLES FOR 1978 SITE 1 — SOYBEANS

SITE	DATE	LOC	SAMPLE WT. GM	H2O %	METRIBUZIN PPM	METRIBUZIN KG/HA	ALACHLOR PPM	ALACHLOR KG/HA	PARAQUAT PPM	PARAQUAT KG/HA
1	5/18/78	1A	2932	17.9	0.55	0.38	2.02	1.40	3.14	2.18
1	5/18/78	1B	2302	17.4	0.14	0.08	3.35	1.83	2.94	1.60
1	5/18/78	2	1967	19.8	1.49	0.69	4.22	1.96	4.34	2.02
1	5/18/78	3	2074	17.1	0.27	0.13	4.66	2.29	3.03	1.48
1	5/18/78	4	1635	16.8	0.90	0.35	5.31	2.05	4.09	1.58
1	5/18/78	5	2076	21.5	0.18	0.09	1.06	0.52	2.93	1.44
1	5/18/78	6	2083	23.3	0.51	0.25	3.56	1.76	3.19	1.57
1	5/18/78	7	1991	17.5	0.0	0.0	3.03	1.43	2.94	1.38
1	5/18/78	8	2193	19.7	0.21	0.11	2.44	1.26	3.19	1.65
1	5/18/78	9	2159	13.5	0.17	0.08	3.49	1.78	3.59	1.83
1	5/18/78	10	1986	22.1	0.33	0.15	3.75	1.76	3.97	1.86
1	5/18/78	11	2294	21.0	0.13	0.07	1.15	0.62	3.13	1.70
	MEAN					0.20		1.55		1.69
	STANDARD DEVIATION					0.19		0.54		0.24
1	5/19/78	1	2306	16.1	0.09	0.05	3.38	1.84	3.92	2.14
1	5/19/78	2A	1566	11.6	0.28	0.10	6.19	2.29	4.19	1.55
1	5/19/78	2B	1905	17.5	0.04	0.02	1.15	0.52	4.51	2.03
1	5/19/78	3	2981	21.6	0.0	0.0	0.67	0.48	5.17	3.64
1	5/19/78	4	1917	16.9	0.23	0.10	5.82	2.64	4.58	2.07
1	5/19/78	5	2429	17.8	0.0	0.0	1.23	0.71	3.63	2.09
1	5/19/78	6	3106	21.1	0.0	0.0	1.90	1.39	3.03	2.23
1	5/19/78	7	2379	20.2	0.13	0.07	5.11	2.88	4.21	2.37
1	5/19/78	8	2447	21.5	0.0	0.0	2.54	1.47	3.75	2.17
1	5/19/78	9	1822	23.0	0.14	0.06	2.52	1.09	3.80	1.64
1	5/19/78	10	2266	22.0	0.14	0.07	4.24	2.27	4.37	2.34
1	5/19/78	11	2677	25.7	0.09	0.05	2.66	1.69	2.94	1.86
	MEAN					0.04		1.60		2.18
	STANDARD DEVIATION					0.04		0.81		0.53
1	5/20/78	1	1627	19.8	0.08	0.03	1.97	0.76	3.34	1.29
1	5/20/78	2	1246	24.2	0.18	0.05	2.74	0.81	5.48	1.62
1	5/20/78	3A	2390	19.1	0.06	0.03	4.34	2.45	2.98	1.68
1	5/20/78	3B	1887	19.8	0.15	0.07	4.03	1.80	2.89	1.29
1	5/20/78	4	1847	16.9	0.20	0.09	3.88	1.69	4.09	1.79
1	5/20/78	5	2941	19.3	0.44	0.30	3.39	2.36	2.54	1.76
1	5/20/78	6	2729	18.4	0.14	0.09	2.46	1.59	2.86	1.85
1	5/20/78	7	2294	16.7	0.12	0.07	2.73	1.48	3.21	1.74
1	5/20/78	8	2011	18.2	0.16	0.08	2.69	1.28	2.76	1.31
1	5/20/78	9	2079	14.3	0.07	0.03	3.40	1.67	2.57	1.26
1	5/20/78	10	2444	22.1	0.12	0.07	2.83	1.64	2.85	1.65
1	5/20/78	11	2336	20.2	0.14	0.08	2.80	1.55	2.90	1.60
	MEAN					0.08		1.59		1.57
	STANDARD DEVIATION					0.07		0.51		0.22

SITE	DATE	LOC	SAMPLE WT. GM	H2O %	METRIBUZIN PPM	METRIBUZIN KG/HA	ALACHLOR PPM	ALACHLOR KG/HA	PARAQUAT PPM	PARAQUAT KG/HA
1	5/21/78	1	2555	17.4	0.48	0.29	3.52	2.13	3.04	1.83
1	5/21/78	2	2698	18.3	0.25	0.16	7.00	4.46	3.85	2.45
1	5/21/78	3	2906	16.8	0.13	0.09	4.04	2.78	2.87	1.97
1	5/21/78	4A	2886	17.4	0.30	0.21	5.26	3.59	3.13	2.13
1	5/21/78	4B	2902	17.5	0.14	0.10	7.26	4.98	3.13	2.15
1	5/21/78	5	2976	16.8	0.38	0.27	6.61	4.65	2.63	1.85
1	5/21/78	6	3411	17.7	0.16	0.13	5.18	4.18	2.55	2.06
1	5/21/78	7	3128	16.2	0.20	0.14	12.27	9.08	3.20	2.36
1	5/21/78	8	3308	18.8	0.22	0.18	10.42	8.15	2.27	1.78
1	5/21/78	9	2859	16.8	0.43	0.29	3.70	2.50	3.26	2.20
1	5/21/78	10	2577	15.5	0.27	0.16	3.82	2.33	3.27	2.00
1	5/21/78	11	2682	14.8	0.08	0.05	1.78	1.13	2.01	1.27
	MEAN					0.17		4.16		2.01
	STANDARD DEVIATION					0.08		2.39		0.31
1	5/22/78	1	2633	13.7	0.18	0.11	3.39	2.11	2.84	1.77
1	5/22/78	2	2788	18.8	0.17	0.11	4.29	2.83	3.07	2.03
1	5/22/78	3	2808	21.5	0.17	0.11	2.60	1.73	1.87	1.24
1	5/22/78	4	2710	16.7	0.13	0.08	4.21	2.69	2.82	1.81
1	5/22/78	5A	3063	18.4	0.09	0.07	3.59	2.60	2.76	2.00
1	5/22/78	5B	2707	18.7	0.10	0.07	4.10	2.62	2.77	1.77
1	5/22/78	6	2995	16.9	0.14	0.10	4.40	3.11	2.63	1.86
1	5/22/78	7	2723	15.4	0.38	0.24	6.90	4.45	3.85	2.48
1	5/22/78	8	2604	17.8	0.14	0.08	7.24	4.46	3.33	2.05
1	5/22/78	9	2848	18.7	0.15	0.10	7.89	5.31	2.97	2.00
1	5/22/78	10	3011	14.9	0.15	0.11	7.06	5.02	3.54	2.52
1	5/22/78	11	2655	20.2	0.13	0.08	9.77	6.13	3.00	1.89
	MEAN					0.11		3.59		1.95
	STANDARD DEVIATION					0.05		1.42		0.33
1	5/24/78	1	1970	16.8	0.07	0.03	2.74	1.28	4.57	2.13
1	5/24/78	2	2000	19.8	0.10	0.05	3.43	1.62	3.89	1.84
1	5/24/78	3	2332	18.7	0.05	0.03	3.37	1.86	3.46	1.91
1	5/24/78	4	2219	18.0	0.07	0.04	3.58	1.88	3.24	1.70
1	5/24/78	5	2107	17.3	0.08	0.04	3.35	1.67	3.52	1.75
1	5/24/78	6A	2348	20.6	0.10	0.05	2.73	1.51	3.36	1.87
1	5/24/78	6B	2239	18.2	0.07	0.04	3.06	1.62	3.45	1.82
1	5/24/78	7	2210	16.0	0.03	0.02	2.61	1.36	3.09	1.61
1	5/24/78	8	2130	19.4	0.07	0.03	2.28	1.15	2.88	1.45
1	5/24/78	9	2549	19.5	0.12	0.07	3.42	2.06	3.18	1.92
1	5/24/78	10	2067	18.7	0.13	0.06	3.43	1.68	3.26	1.60
1	5/24/78	11	2242	19.6	0.03	0.02	1.73	0.92	2.49	1.32
	MEAN					0.04		1.55		1.74
	STANDARD DEVIATION					0.02		0.33		0.22

TABLE G1- 5. CONCLUDED

SITE	DATE	LOC	SAMPLE WT. GM	H2O %	METRIBUZIN PPM	METRIBUZIN KG/HA	ALACHLOR PPM	ALACHLOR KG/HA	PARAQUAT PPM	PARAQUAT KG/HA
1	5/26/78	1	2583	15.3	0.17	0.10	3.30	2.01	3.79	2.32
1	5/26/78	2	2808	19.9	0.06	0.04	2.48	1.65	3.70	2.45
1	5/26/78	3	2902	20.1	0.05	0.04	2.40	1.65	3.11	2.13
1	5/26/78	4	2459	15.2	0.07	0.04	3.48	2.02	3.84	2.23
1	5/26/78	5	2813	16.1	0.04	0.03	2.45	1.63	3.19	2.12
1	5/26/78	6	2772	17.3	0.05	0.03	2.52	1.65	3.13	2.05
1	5/26/78	7A	2852	12.8	0.23	0.16	2.76	1.86	2.72	1.84
1	5/26/78	7B	2983	13.9	0.04	0.03	2.34	1.66	1.71	1.20
1	5/26/78	8	2838	19.7	0.05	0.03	3.03	2.03	2.39	1.61
1	5/26/78	9	3061	18.7	0.13	0.09	4.64	3.36	2.37	1.72
1	5/26/78	10	3085	16.1	0.07	0.05	4.37	3.19	2.22	1.62
1	5/26/78	11	2753	16.7	0.05	0.03	6.61	4.30	2.53	1.64
	MEAN					0.06		2.25		1.91
	STANDARD DEVIATION					0.04		0.88		0.37

TABLE G1- 6. FOUR MILE CREEK WATERSHED HERBICIDE MEASUREMENTS IN VOLUME SOIL SAMPLES FOR 1978 SITE 2 — CORN

SITE	DATE	LOC	SAMPLE WT. GM	H2O %	PROPACHLOR PPM	PROPACHLOR KG/HA	CYANAZINE PPM	CYANAZINE KG/HA	PARAQUAT PPM	PARAQUAT KG/HA
2	5/ 2/78	1A	3072	18.7	1.52	1.10	3.32	2.41	4.75	3.45
2	5/ 2/78	1B	2209	16.4	3.03	1.58	6.12	3.20	7.47	3.90
2	5/ 2/78	2	2574	16.2	1.97	1.20	3.71	2.26	4.74	2.89
2	5/ 2/78	3	2249	23.0	2.97	1.58	4.39	2.34	5.64	3.00
2	5/ 2/78	4	2961	17.8	3.27	2.29	3.74	2.62	5.49	3.85
2	5/ 2/78	5	3211	16.6	2.38	1.81	3.66	2.78	4.37	3.32
2	5/ 2/78	6	2823	14.5	1.94	1.29	1.80	1.20	5.15	3.44
2	5/ 2/78	7	3076	17.0	2.70	1.97	2.99	2.17	4.58	3.33
2	5/ 2/78	8	2458	16.7	1.97	1.15	1.65	0.96	4.67	2.71
2	5/ 2/78	9	2869	18.5	1.39	0.95	2.54	1.73	3.75	2.54
2	5/ 2/78	10	3155	17.1	2.10	1.57	3.62	2.70	3.91	2.91
2	5/ 2/78	11	2526	16.7	2.26	1.35	3.00	1.79	4.38	2.61
		MEAN				1.49		2.18		3.16
		STANDARD DEVIATION				0.39		0.66		0.46
2	5/ 3/78	1	2698	17.1	3.29	2.10	6.34	4.04	4.69	2.99
2	5/ 3/78	2A	3188	14.4	1.25	0.94	3.28	2.47	4.57	3.45
2	5/ 3/78	2B	2934	14.1	3.40	2.36	4.20	2.91	5.47	3.79
2	5/ 3/78	3	2318	20.8	2.25	1.23	3.70	2.03	5.24	2.87
2	5/ 3/78	4	2667	17.3	1.27	0.80	2.32	1.46	5.09	3.21
2	5/ 3/78	5	2882	14.4	2.35	1.60	2.40	1.64	4.76	3.25
2	5/ 3/78	6	2665	15.0	2.38	1.50	4.24	2.67	4.31	2.72
2	5/ 3/78	7	2848	15.4	1.81	1.22	1.46	0.98	4.33	2.91
2	5/ 3/78	8	2829	16.2	1.32	0.88	5.05	3.38	4.94	3.30
2	5/ 3/78	9	2628	17.3	2.05	1.28	2.67	1.66	3.96	2.46
2	5/ 3/78	10	2903	14.7	1.70	1.17	2.99	2.06	4.59	3.15
2	5/ 3/78	11	2702	14.6	2.57	1.64	1.53	0.98	4.87	3.11
		MEAN				1.39		2.19		3.10
		STANDARD DEVIATION				0.48		0.94		0.35
2	5/ 4/78	1	3567	17.8	2.08	1.76	1.92	1.62	5.40	4.55
2	5/ 4/78	2	3002	15.5	3.47	2.46	2.89	2.05	4.81	3.41
2	5/ 4/78	3A	2896	22.5	1.44	0.99	1.75	1.20	4.18	2.86
2	5/ 4/78	3B	3152	23.5	2.68	2.00	2.47	1.84	4.63	3.45
2	5/ 4/78	4	3102	17.1	1.54	1.13	1.15	0.84	5.08	3.72
2	5/ 4/78	5	2693	13.8	4.98	3.17	2.55	1.62	4.45	2.84
2	5/ 4/78	6	2835	14.5	2.86	1.92	2.63	1.76	3.72	2.49
2	5/ 4/78	7	2562	15.3	3.24	1.96	3.37	2.04	5.67	3.43
2	5/ 4/78	8	2836	14.4	3.12	2.10	3.00	2.01	4.19	2.81
2	5/ 4/78	9	2957	16.3	2.43	1.70	2.85	1.99	4.12	2.88
2	5/ 4/78	10	2958	14.8	1.83	1.28	2.08	1.45	3.35	2.34
2	5/ 4/78	11	2929	16.5	3.97	2.75	3.09	2.14	4.56	3.16
		MEAN				1.93		1.71		3.16
		STANDARD DEVIATION				0.64		0.39		0.60
2	5/ 5/78	1	3610	17.7	1.92	1.64	3.45	2.94	4.41	3.77
2	5/ 5/78	2	3231	14.4	2.15	1.64	3.20	2.44	3.43	2.62
2	5/ 5/78	3	2681	20.0	2.36	1.66	3.37	2.38	5.60	3.94
2	5/ 5/78	4A	2761	15.8	2.18	1.42	2.61	1.70	4.15	2.71
2	5/ 5/78	4B	3077	16.5	4.40	3.20	3.03	2.21	5.24	3.81
2	5/ 5/78	5	2870	15.8	4.34	2.95	4.67	3.17	4.22	2.86
2	5/ 5/78	6	2961	15.8	2.51	1.76	3.47	2.43	3.47	2.43
2	5/ 5/78	7	2736	18.2	2.50	1.62	1.09	0.70	4.14	2.68
2	5/ 5/78	8	2807	14.9	2.37	1.58	3.58	2.38	4.59	3.05
2	5/ 5/78	9	2372	15.5	1.92	1.30	2.10	1.43	3.46	2.35
2	5/ 5/78	10	2280	13.8	3.35	1.80	4.96	2.68	5.12	2.76
2	5/ 5/78	11	2779	15.3	1.62	1.07	2.88	1.89	3.75	2.46
		MEAN				1.80		2.20		2.95
		STANDARD DEVIATION				0.63		0.66		0.57
2	5/ 6/78	1	2839	16.4	1.62	1.09	2.88	1.93	3.68	2.47
2	5/ 6/78	2	3360	14.5	1.61	1.28	2.42	1.92	4.29	3.41
2	5/ 6/78	3	2752	20.7	1.38	0.90	1.78	1.16	4.93	3.21
2	5/ 6/78	4	3108	15.9	2.38	1.75	3.47	2.55	4.83	3.55
2	5/ 6/78	5A	2837	16.0	4.65	3.12	4.13	2.77	5.32	3.57
2	5/ 6/78	5B	3039	17.0	3.22	2.31	4.27	3.07	4.49	3.22
2	5/ 6/78	6	2760	14.7	2.86	1.86	2.33	1.52	4.21	2.74
2	5/ 6/78	7	2654	16.9	3.36	2.11	0.92	0.58	4.19	2.63
2	5/ 6/78	8	2709	14.7	1.92	1.23	2.78	1.78	4.83	3.09
2	5/ 6/78	9	3043	15.5	1.35	0.97	2.57	1.85	2.70	1.94
2	5/ 6/78	10	3029	14.4	2.74	1.96	3.04	2.17	3.14	2.25
2	5/ 6/78	11	2773	16.1	2.89	1.89	3.01	1.98	3.96	2.60
		MEAN				1.71		1.94		2.89
		STANDARD DEVIATION				0.65		0.68		0.53
2	5/10/78	1	2848	25.3	1.44	0.97	4.13	2.78	4.49	3.02
2	5/10/78	2	2918	25.0	1.43	0.99	3.13	2.16	3.13	2.16
2	5/10/78	3	2567	27.6	1.54	0.94	3.67	2.23	3.94	2.39
2	5/10/78	4	2790	25.7	2.07	1.36	5.27	3.48	4.08	2.69
2	5/10/78	5	3289	24.5	2.57	2.00	5.37	4.17	3.94	3.06
2	5/10/78	6A	2814	23.4	2.66	1.77	3.18	2.12	4.01	2.67
2	5/10/78	6B	2836	24.7	1.87	1.25	3.39	2.27	3.53	2.37
2	5/10/78	7	2592	25.8	1.38	0.85	3.40	2.08	3.77	2.31
2	5/10/78	8	2704	26.1	1.40	0.90	5.31	3.39	3.78	2.42
2	5/10/78	9	2897	23.0	1.74	1.20	1.90	1.30	2.97	2.03
2	5/10/78	10	2862	23.9	0.69	0.46	1.61	1.09	3.41	2.31
2	5/10/78	11	2690	26.5	1.39	0.88	4.38	2.77	4.85	3.09
		MEAN				1.13		2.49		2.54
		STANDARD DEVIATION				0.42		0.89		0.36

TABLE G1- 6. CONCLUDED

SITE	DATE	LOC	SAMPLE WT. GM	H2O %	PROPACHLOR PPM	PROPACHLOR KG/HA	CYANAZINE PPM	CYANAZINE KG/HA	PARAQUAT PPM	PARAQUAT KG/HA
2	5/12/78	1	2954	22.3	1.50	1.05	1.64	1.15	4.08	2.85
2	5/12/78	2	2762	22.2	1.05	0.69	2.43	1.59	3.87	2.53
2	5/12/78	3	2245	23.3	2.45	1.30	5.20	2.76	4.01	2.13
2	5/12/78	4	2360	21.7	2.82	1.58	6.40	3.57	4.87	2.72
2	5/12/78	5	2425	22.4	2.35	1.35	4.72	2.71	4.79	2.75
2	5/12/78	6	2615	22.0	2.11	1.31	2.17	1.34	4.47	2.76
2	5/12/78	7A	2598	22.7	1.53	0.94	2.95	1.81	5.16	3.17
2	5/12/78	7B	2455	22.2	1.31	0.76	3.07	1.78	4.99	2.90
2	5/12/78	8	2424	22.1	1.86	1.07	5.07	2.90	5.19	2.97
2	5/12/78	9	2410	21.0	2.56	1.46	4.32	2.46	5.14	2.93
2	5/12/78	10	2787	21.8	1.74	1.15	5.35	3.52	5.38	3.54
2	5/12/78	11	2718	21.4	1.23	0.79	3.78	2.43	5.36	3.44
	MEAN					1.12		2.34		2.89
	STANDARD DEVIATION					0.29		0.81		0.38

TABLE G2- 1. FOUR MILE CREEK WATERSHED HERBICIDE MEASUREMENTS IN CORE SOIL SAMPLES FOR 1976 SITE 1 -- SOYBEANS

SITE	DATE	DEPTH CM	SAMPLE WT. GM	H2O %	METRIBUZIN PPM	METRIBUZIN KG/HA	ALACHLOR PPM	ALACHLOR KG/HA	PARAQUAT PPM	PARAQUAT KG/HA
1-1	5/30/76	0-1	55.6	30.0	0.66	0.08	5.70	0.70	5.81	0.71
1-1	5/30/76	1-7.5	354.8	30.6	0.02	0.02	0.0	0.0	0.0	0.0
1-1	5/30/76	7.5-15			0.0	0.0	0.0	0.0	0.0	0.0
1-1	5/30/76	15-30			0.0	0.0	0.0	0.0	0.0	0.0
		TOTAL				0.10		0.70		0.71
1-2	5/30/76	0-1	53.5	27.3	0.40	0.05	5.13	0.60	8.55	1.00
1-2	5/30/76	1-7.5	345.0	28.8	0.05	0.04	0.0	0.0	0.71	0.54
1-2	5/30/76	7.5-15			0.0	0.0	0.0	0.0	0.0	0.0
1-2	5/30/76	15-30			0.0	0.0	0.0	0.0	0.0	0.0
		TOTAL				0.08		0.60		1.54
1-3	5/30/76	0-1	53.0	23.2	0.54	0.06	5.00	0.58	4.48	0.52
1-3	5/30/76	1-7.5	325.5	26.6	0.07	0.05	0.28	0.20	1.33	0.95
1-3	5/30/76	7.5-15			0.0	0.0	0.0	0.0	0.0	0.0
1-3	5/30/76	15-30			0.0	0.0	0.0	0.0	0.0	0.0
		TOTAL				0.11		0.78		1.47
		MEAN				0.10		0.69		1.24
		STANDARD DEVIATION				0.01		0.09		0.46
1-1	6/15/76	0-1	56.9	11.2	0.21	0.03	1.95	0.24	7.45	0.93
1-1	6/15/76	1-7.5	318.3	24.2	0.04	0.03	0.12	0.08	0.92	0.64
1-1	6/15/76	7.5-15			0.0	0.0	0.0	0.0	0.0	0.0
1-1	6/15/76	15-30			0.0	0.0	0.0	0.0	0.0	0.0
		TOTAL				0.05		0.33		1.57
1-2	6/15/76	0-1	62.3	10.7	0.18	0.02	1.73	0.24	6.20	0.85
1-2	6/15/76	1-7.5	348.4	23.3	0.10	0.08	0.08	0.06	0.50	0.38
1-2	6/15/76	7.5-15			0.0	0.0	0.0	0.0	0.0	0.0
1-2	6/15/76	15-30			0.0	0.0	0.0	0.0	0.0	0.0
		TOTAL				0.10		0.30		1.23
1-3	6/15/76	0-1	61.1	9.4	0.17	0.02	2.48	0.33	8.28	1.11
1-3	6/15/76	1-7.5	310.3	21.4	0.03	0.02	0.12	0.08	0.87	0.59
1-3	6/15/76	7.5-15			0.0	0.0	0.0	0.0	0.0	0.0
1-3	6/15/76	15-30			0.0	0.0	0.0	0.0	0.0	0.0
		TOTAL				0.04		0.41		1.70
		MEAN				0.07		0.35		1.50
		STANDARD DEVIATION				0.03		0.06		0.24
1-1	6/ 8/76	0-1	67.9	5.4	0.37	0.06	2.63	0.39	6.70	1.00
1-1	6/ 8/76	1-7.5	291.0	20.7	0.02	0.01	0.0	0.0	0.47	0.30
1-1	6/ 8/76	7.5-15			0.0	0.0	0.0	0.0	0.33	0.35
1-1	6/ 8/76	15-30			0.0	0.0	0.0	0.0	0.0	0.0
		TOTAL				0.07		0.39		1.64
1-2	6/ 8/76	0-1	58.3	4.3	0.17	0.02	2.28	0.29	3.77	0.48
1-2	6/ 8/76	1-7.5	337.8	20.0	0.0	0.0	0.0	0.0	0.47	0.35
1-2	6/ 8/76	7.5-15			0.0	0.0	0.0	0.0	0.0	0.0
1-2	6/ 8/76	15-30			0.0	0.0	0.0	0.0	0.0	0.0
		TOTAL				0.02		0.29		0.83
1-3	6/ 8/76	0-1	50.7	4.2	0.14	0.02	0.96	0.11	4.89	0.54
1-3	6/ 8/76	1-7.5	289.2	19.5	0.03	0.02	0.0	0.0	0.49	0.31
1-3	6/ 8/76	7.5-15			0.0	0.0	0.0	0.0	0.0	0.0
1-3	6/ 8/76	15-30			0.0	0.0	0.0	0.0	0.0	0.0
		TOTAL				0.03		0.11		0.85
		MEAN				0.04		0.26		1.11
		STANDARD DEVIATION				0.02		0.14		0.46
1-1	6/21/76	0-1	56.0	4.4	0.15	0.02	1.24	0.15	6.27	0.77
1-1	6/21/76	1-7.5	352.4	20.3	0.02	0.02	0.0	0.0	0.69	0.53
1-1	6/21/76	7.5-15			0.0	0.0	0.0	0.0	0.0	0.0
1-1	6/21/76	15-30			0.0	0.0	0.0	0.0	0.0	0.0
		TOTAL				0.03		0.15		1.30
1-2	6/21/76	0-1	58.9	4.0	0.10	0.01	1.78	0.23	5.80	0.75
1-2	6/21/76	1-7.5	314.3	18.9	0.02	0.01	0.0	0.0	0.61	0.42
1-2	6/21/76	7.5-15			0.0	0.0	0.0	0.0	0.0	0.0
1-2	6/21/76	15-30			0.0	0.0	0.0	0.0	0.0	0.0
		TOTAL				0.03		0.23		1.17
1-3	6/21/76	0-1	59.4	3.2	0.13	0.02	1.19	0.16	4.78	0.62
1-3	6/21/76	1-7.5	297.0	17.7	0.12	0.08	0.14	0.09	0.57	0.37
1-3	6/21/76	7.5-15			0.0	0.0	0.0	0.0	0.0	0.0
1-3	6/21/76	15-30			0.0	0.0	0.0	0.0	0.0	0.0
		TOTAL				0.10		0.25		0.99
		MEAN				0.05		0.21		1.16
		STANDARD DEVIATION				0.04		0.05		0.16

TABLE G2- 1. CONCLUDED

SITE	DATE	DEPTH CM	SAMPLE WT. GM	H2O %	METRIBUZIN PPM	METRIBUZIN KG/HA	ALACHLOR PPM	ALACHLOR KG/HA	PARAQUAT PPM	PARAQUAT KG/HA
1-1	7/ 2/76	0-1	56.3	7.9	0.13	0.02	0.76	0.09	3.58	0.44
1-1	7/ 2/76	1-7.5	383.6	22.8	0.03	0.03	0.08	0.07	0.46	0.39
1-1	7/ 2/76	7.5-15			0.0	0.0	0.0	0.0	0.0	0.0
1-1	7/ 2/76	15-30			0.0	0.0	0.0	0.0	0.0	0.0
		TOTAL				0.04		0.16		0.83
1-2	7/ 2/76	0-1	59.5	6.0	0.16	0.02	0.31	0.04	2.12	0.28
1-2	7/ 2/76	1-7.5	339.0	20.6	0.02	0.01	0.04	0.03	0.52	0.39
1-2	7/ 2/76	7.5-15			0.0	0.0	0.0	0.0	0.0	0.0
1-2	7/ 2/76	15-30			0.0	0.0	0.0	0.0	0.0	0.0
		TOTAL				0.04		0.07		0.66
1-3	7/ 2/76	0-1	60.5	5.8	0.15	0.02	0.46	0.06	3.93	0.52
1-3	7/ 2/76	1-7.5	314.7	20.0	0.03	0.02	0.23	0.16	0.68	0.47
1-3	7/ 2/76	7.5-15			0.0	0.0	0.02	0.02	0.0	0.0
1-3	7/ 2/76	15-30			0.0	0.0	0.0	0.0	0.0	0.0
		TOTAL				0.04		0.24		0.99
		MEAN				0.04		0.16		0.83
		STANDARD DEVIATION				0.00		0.09		0.16
1-1	7/13/76	0-1	71.3	4.9	0.0	0.0	0.0	0.0	2.58	0.40
1-1	7/13/76	1-7.5			0.0	0.0	0.0	0.0	0.0	0.0
1-1	7/13/76	7.5-15			0.0	0.0	0.0	0.0	0.0	0.0
1-1	7/13/76	15-30			0.0	0.0	0.0	0.0	0.0	0.0
		TOTAL				0.0		0.0		0.40
1-2	7/13/76	0-1	72.5	4.3	0.0	0.0	0.0	0.0	2.45	0.39
1-2	7/13/76	1-7.5			0.0	0.0	0.0	0.0	0.0	0.0
1-2	7/13/76	7.5-15			0.0	0.0	0.0	0.0	0.0	0.0
1-2	7/13/76	15-30			0.0	0.0	0.0	0.0	0.0	0.0
		TOTAL				0.0		0.0		0.39
1-3	7/13/76	0-1	69.9	3.1	0.0	0.0	0.0	0.0	2.38	0.36
1-3	7/13/76	1-7.5			0.0	0.0	0.0	0.0	0.0	0.0
1-3	7/13/76	7.5-15			0.0	0.0	0.0	0.0	0.0	0.0
1-3	7/13/76	15-30			0.0	0.0	0.0	0.0	0.0	0.0
		TOTAL				0.0		0.0		0.36
		MEAN				0.0		0.0		0.39
		STANDARD DEVIATION				0.0		0.0		0.02

SITE	DATE	DEPTH CM	SAMPLE WT. GM	H2O %	METRIBUZIN PPM	METRIBUZIN KG/HA	ALACHLOR PPM	ALACHLOR KG/HA	PARAQUAT PPM	PARAQUAT KG/HA
1-1	7/27/76	0-1	65.9	7.1	0.03	0.00	0.16	0.02	1.70	0.25
1-1	7/27/76	1-7.5	315.5	14.8	0.01	0.01	0.05	0.03	0.48	0.33
1-1	7/27/76	7.5-15			0.0	0.0	0.0	0.0	0.0	0.0
1-1	7/27/76	15-30			0.0	0.0	0.0	0.0	0.0	0.0
		TOTAL				0.01		0.06		0.58
1-2	7/27/76	0-1	83.9	4.6	0.05	0.01	0.19	0.03	2.56	0.47
1-2	7/27/76	1-7.5	328.8	15.0	0.01	0.01	0.06	0.04	0.71	0.51
1-2	7/27/76	7.5-15			0.0	0.0	0.0	0.0	0.0	0.0
1-2	7/27/76	15-30			0.0	0.0	0.0	0.0	0.0	0.0
		TOTAL				0.02		0.08		0.98
1-3	7/27/76	0-1	71.2	4.8	0.04	0.01	0.0	0.0	1.14	0.18
1-3	7/27/76	1-7.5	280.5	12.6	0.01	0.01	0.0	0.0	0.47	0.29
1-3	7/27/76	7.5-15			0.0	0.0	0.0	0.0	0.0	0.0
1-3	7/27/76	15-30			0.0	0.0	0.0	0.0	0.0	0.0
		TOTAL				0.01		0.0		0.47
		MEAN				0.01		0.05		0.68
		STANDARD DEVIATION				0.00		0.04		0.27
1-1	8/31/76	0-1	74.3	3.7	0.0	0.0	0.0	0.0	4.07	0.66
1-1	8/31/76	1-7.5			0.0	0.0	0.0	0.0	0.0	0.0
1-1	8/31/76	7.5-15			0.0	0.0	0.0	0.0	0.0	0.0
1-1	8/31/76	15-30			0.0	0.0	0.0	0.0	0.0	0.0
		TOTAL				0.0		0.0		0.66
1-2	8/31/76	0-1	66.9	4.3	0.0	0.0	0.0	0.0	2.31	0.34
1-2	8/31/76	1-7.5			0.0	0.0	0.0	0.0	0.0	0.0
1-2	8/31/76	7.5-15			0.0	0.0	0.0	0.0	0.0	0.0
1-2	8/31/76	15-30			0.0	0.0	0.0	0.0	0.0	0.0
		TOTAL				0.0		0.0		0.34
1-3	8/31/76	0-1	67.7	3.0	0.0	0.0	0.0	0.0	2.18	0.32
1-3	8/31/76	1-7.5			0.0	0.0	0.0	0.0	0.0	0.0
1-3	8/31/76	7.5-15			0.0	0.0	0.0	0.0	0.0	0.0
1-3	8/31/76	15-30			0.0	0.0	0.0	0.0	0.0	0.0
		TOTAL				0.0		0.0		0.32
		MEAN				0.0		0.0		0.44
		STANDARD DEVIATION				0.0		0.0		0.19

TABLE G2- 2. FOUR MILE CREEK WATERSHED HERBICIDE MEASUREMENTS IN CORE SOIL SAMPLES FOR 1976 SITE 2 -- CORN

SITE	DATE	DEPTH CM	SAMPLE WT. GM	H2O %	PROPACHLOR PPM	PROPACHLOR KG/HA	CYANAZINE PPM	CYANAZINE KG/HA	PARAQUAT PPM	PARAQUAT KG/HA
2-1	5/13/76	0-1	50.9	28.2	7.60	0.85	10.17	1.14	7.41	0.83
2-1	5/13/76	1-7.5	372.5	28.1	0.09	0.07	0.12	0.10	0.18	0.15
2-1	5/13/76	7.5-15			0.0	0.0	0.0	0.0	0.0	0.0
2-1	5/13/76	15-30			0.0	0.0	0.0	0.0	0.0	0.0
		TOTAL				0.92		1.23		0.97
2-2	5/13/76	0-1	52.2	26.9	7.00	0.80	9.55	1.09	6.68	0.76
2-2	5/13/76	1-7.5	370.3	26.7	0.13	0.11	0.29	0.24	0.0	0.0
2-2	5/13/76	7.5-15			0.0	0.0	0.0	0.0	0.0	0.0
2-2	5/13/76	15-30			0.0	0.0	0.0	0.0	0.0	0.0
		TOTAL				0.91		1.33		0.76
2-3	5/13/76	0-1	51.5	26.6	4.43	0.50	7.84	0.89	6.46	0.73
2-3	5/13/76	1-7.5	356.2	26.0	0.09	0.07	0.13	0.10	0.0	0.0
2-3	5/13/76	7.5-15			0.0	0.0	0.0	0.0	0.0	0.0
2-3	5/13/76	15-30			0.0	0.0	0.0	0.0	0.0	0.0
		TOTAL				0.57		0.99		0.73
		MEAN				0.80		1.18		0.82
		STANDARD DEVIATION				0.20		0.19		0.13

SITE	DATE	DEPTH CM	SAMPLE WT. GM	H2O %	PROPACHLOR PPM	PROPACHLOR KG/HA	CYANAZINE PPM	CYANAZINE KG/HA	PARAQUAT PPM	PARAQUAT KG/HA
2-1	5/26/76	0-1	61.8	10.3	0.26	0.04	3.89	0.53	4.81	0.65
2-1	5/26/76	1-7.5	339.1	22.4	0.0	0.0	0.09	0.07	0.0	0.0
2-1	5/26/76	7.5-15			0.0	0.0	0.0	0.0	0.0	0.0
2-1	5/26/76	15-30			0.0	0.0	0.0	0.0	0.0	0.0
		TOTAL				0.04		0.59		0.65
2-2	5/26/76	0-1	63.7	6.8	0.0	0.0	2.84	0.40	4.63	0.65
2-2	5/26/76	1-7.5	332.3	20.7	0.0	0.0	0.14	0.10	0.58	0.42
2-2	5/26/76	7.5-15			0.0	0.0	0.0	0.0	0.0	0.0
2-2	5/26/76	15-30			0.0	0.0	0.0	0.0	0.0	0.0
		TOTAL				0.0		0.50		1.07
2-3	5/26/76	0-1	55.8	7.1	0.41	0.05	2.96	0.36	4.24	0.52
2-3	5/26/76	1-7.5	300.7	20.2	0.0	0.0	0.27	0.18	0.47	0.31
2-3	5/26/76	7.5-15			0.0	0.0	0.0	0.0	0.0	0.0
2-3	5/26/76	15-30			0.0	0.0	0.0	0.0	0.0	0.0
		TOTAL				0.05		0.54		0.83
		MEAN				0.03		0.54		0.85
		STANDARD DEVIATION				0.03		0.05		0.21

SITE	DATE	DEPTH CM	SAMPLE WT. GM	H2O %	PROPACHLOR PPM	PROPACHLOR KG/HA	CYANAZINE PPM	CYANAZINE KG/HA	PARAQUAT PPM	PARAQUAT KG/HA
2-1	5/17/76	0-1	50.9	19.9	2.50	0.28	6.80	0.76	6.18	0.69
2-1	5/17/76	1-7.5	334.4	27.1	0.0	0.0	0.0	0.0	0.0	0.0
2-1	5/17/76	7.5-15			0.0	0.0	0.0	0.0	0.0	0.0
2-1	5/17/76	15-30			0.0	0.0	0.0	0.0	0.0	0.0
		TOTAL				0.28		0.76		0.69
2-2	5/17/76	0-1	56.0	18.4	3.05	0.37	6.54	0.80	6.91	0.85
2-2	5/17/76	1-7.5	360.7	25.5	0.43	0.34	0.63	0.50	0.0	0.0
2-2	5/17/76	7.5-15			0.0	0.0	0.0	0.0	0.0	0.0
2-2	5/17/76	15-30			0.0	0.0	0.0	0.0	0.0	0.0
		TOTAL				0.71		1.30		0.85
2-3	5/17/76	0-1	63.2	15.8	2.25	0.31	5.77	0.80	4.74	0.66
2-3	5/17/76	1-7.5	340.0	25.0	0.0	0.0	0.0	0.0	0.0	0.0
2-3	5/17/76	7.5-15			0.0	0.0	0.0	0.0	0.0	0.0
2-3	5/17/76	15-30			0.0	0.0	0.0	0.0	0.0	0.0
		TOTAL				0.31		0.80		0.66
		MEAN				0.44		0.95		0.73
		STANDARD DEVIATION				0.24		0.30		0.10

SITE	DATE	DEPTH CM	SAMPLE WT. GM	H2O %	PROPACHLOR PPM	PROPACHLOR KG/HA	CYANAZINE PPM	CYANAZINE KG/HA	PARAQUAT PPM	PARAQUAT KG/HA
2-1	5/30/76	0-1	55.6	28.7	0.08	0.01	5.89	0.72	5.57	0.68
2-1	5/30/76	1-7.5	303.7	30.8	0.0	0.0	0.49	0.33	0.65	0.43
2-1	5/30/76	7.5-15			0.0	0.0	0.0	0.0	0.0	0.0
2-1	5/30/76	15-30			0.0	0.0	0.0	0.0	0.0	0.0
		TOTAL				0.01		1.04		1.11
2-2	5/30/76	0-1	66.1	27.7	0.0	0.0	3.23	0.47	6.46	0.94
2-2	5/30/76	1-7.5	358.0	27.7	0.0	0.0	0.60	0.47	0.68	0.53
2-2	5/30/76	7.5-15			0.0	0.0	0.0	0.0	0.0	0.0
2-2	5/30/76	15-30			0.0	0.0	0.0	0.0	0.0	0.0
		TOTAL				0.0		0.94		1.47
2-3	5/30/76	0-1	65.5	26.7	0.0	0.0	1.44	0.21	5.02	0.72
2-3	5/30/76	1-7.5	313.3	28.1	0.0	0.0	0.0	0.0	0.0	0.0
2-3	5/30/76	7.5-15			0.0	0.0	0.0	0.0	0.0	0.0
2-3	5/30/76	15-30			0.0	0.0	0.0	0.0	0.0	0.0
		TOTAL				0.0		0.21		0.72
		MEAN				0.00		0.73		1.10
		STANDARD DEVIATION				0.01		0.46		0.37

TABLE G2- 2. CONTINUED

SITE	DATE	DEPTH CM	SAMPLE WT. GM	H2O %	PROPACHLOR PPM	PROPACHLOR KG/HA	CYANAZINE PPM	CYANAZINE KG/HA	PARAQUAT PPM	PARAQUAT KG/HA
2-1	6/ 7/76	0-1	64.8	5.3	0.0	0.0	1.29	0.18	4.45	0.63
2-1	6/ 7/76	1-7.5	320.8	19.8	0.0	0.0	0.27	0.19	0.26	0.18
2-1	6/ 7/76	7.5-15			0.0	0.0	0.0	0.0	0.0	0.0
2-1	6/ 7/76	15-30			0.0	0.0	0.0	0.0	0.0	0.0
		TOTAL				0.0		0.37		0.81
2-2	6/ 7/76	0-1	51.3	4.1	0.0	0.0	1.78	0.20	6.56	0.74
2-2	6/ 7/76	1-7.5	316.6	18.3	0.0	0.0	0.0	0.0	0.42	0.29
2-2	6/ 7/76	7.5-15			0.0	0.0	0.0	0.0	0.0	0.0
2-2	6/ 7/76	15-30			0.0	0.0	0.0	0.0	0.0	0.0
		TOTAL				0.0		0.20		1.03
2-3	6/ 7/76	0-1	60.1	7.4	0.0	0.0	2.14	0.28	5.80	0.76
2-3	6/ 7/76	1-7.5	333.8	19.6	0.0	0.0	0.23	0.17	0.68	0.50
2-3	6/ 7/76	7.5-15			0.0	0.0	0.0	0.0	0.0	0.0
2-3	6/ 7/76	15-30			0.0	0.0	0.0	0.0	0.0	0.0
		TOTAL				0.0		0.45		1.26
		MEAN				0.0		0.34		1.04
		STANDARD DEVIATION				0.0		0.13		0.22
2-1	6/15/76	0-1	72.5	14.7	0.0	0.0	0.98	0.16	2.27	0.36
2-1	6/15/76	1-7.5	313.6	21.3	0.0	0.0	0.12	0.08	0.47	0.32
2-1	6/15/76	7.5-15			0.0	0.0	0.0	0.0	0.0	0.0
2-1	6/15/76	15-30			0.0	0.0	0.0	0.0	0.0	0.0
		TOTAL				0.0		0.24		0.68
2-2	6/15/76	0-1	74.2	12.2	0.0	0.0	0.85	0.14	2.46	0.40
2-2	6/15/76	1-7.5	324.1	21.4	0.0	0.0	0.18	0.13	0.46	0.33
2-2	6/15/76	7.5-15			0.0	0.0	0.0	0.0	0.35	0.37
2-2	6/15/76	15-30			0.0	0.0	0.0	0.0	0.0	0.0
		TOTAL				0.0		0.27		1.10
2-3	6/15/76	0-1	74.4	15.0	0.0	0.0	0.66	0.11	1.92	0.31
2-3	6/15/76	1-7.5	299.4	23.5	0.0	0.0	0.15	0.10	0.59	0.39
2-3	6/15/76	7.5-15			0.0	0.0	0.0	0.0	0.0	0.0
2-3	6/15/76	15-30			0.0	0.0	0.0	0.0	0.0	0.0
		TOTAL				0.0		0.21		0.70
		MEAN				0.0		0.24		0.83
		STANDARD DEVIATION				0.0		0.03		0.23

SITE	DATE	DEPTH CM	SAMPLE WT. GM	H2O %	PROPACHLOR PPM	PROPACHLOR KG/HA	CYANAZINE PPM	CYANAZINE KG/HA	PARAQUAT PPM	PARAQUAT KG/HA
2-1	6/22/76	0-1	52.7	6.0	0.0	0.0	0.80	0.09	1.97	0.23
2-1	6/22/76	1-7.5	311.6	21.2	0.0	0.0	0.11	0.08	0.37	0.25
2-1	6/22/76	7.5-15			0.0	0.0	0.0	0.0	0.0	0.0
2-1	6/22/76	15-30			0.0	0.0	0.0	0.0	0.0	0.0
		TOTAL				0.0		0.17		0.48
2-2	6/22/76	0-1	66.0	8.0	0.0	0.0	0.61	0.09	1.72	0.25
2-2	6/22/76	1-7.5	323.4	21.5	0.0	0.0	0.10	0.07	0.35	0.25
2-2	6/22/76	7.5-15			0.0	0.0	0.0	0.0	0.0	0.0
2-2	6/22/76	15-30			0.0	0.0	0.0	0.0	0.0	0.0
		TOTAL				0.0		0.16		0.50
2-3	6/22/76	0-1	64.0	7.8	0.0	0.0	0.42	0.06	2.19	0.31
2-3	6/22/76	1-7.5	359.0	20.2	0.0	0.0	0.0	0.0	0.58	0.46
2-3	6/22/76	7.5-15			0.0	0.0	0.0	0.0	0.0	0.0
2-3	6/22/76	15-30			0.0	0.0	0.0	0.0	0.0	0.0
		TOTAL				0.0		0.06		0.76
		MEAN				0.0		0.13		0.58
		STANDARD DEVIATION				0.0		0.06		0.16
2-1	7/ 2/76	0-1	65.9	8.4	0.0	0.0	0.47	0.07	2.13	0.31
2-1	7/ 2/76	1-7.5	309.3	20.3	0.0	0.0	0.20	0.14	0.67	0.45
2-1	7/ 2/76	7.5-15			0.0	0.0	0.0	0.0	0.0	0.0
2-1	7/ 2/76	15-30			0.0	0.0	0.0	0.0	0.0	0.0
		TOTAL				0.0		0.20		0.76
2-2	7/ 2/76	0-1	62.5	7.1	0.0	0.0	0.35	0.05	1.78	0.24
2-2	7/ 2/76	1-7.5	406.0	18.2	0.0	0.0	0.11	0.10	0.0	0.0
2-2	7/ 2/76	7.5-15			0.0	0.0	0.0	0.0	0.0	0.0
2-2	7/ 2/76	15-30			0.0	0.0	0.0	0.0	0.0	0.0
		TOTAL				0.0		0.15		0.24
2-3	7/ 2/76	0-1	69.0	7.5	0.0	0.0	0.42	0.06	1.95	0.30
2-3	7/ 2/76	1-7.5	376.9	18.9	0.0	0.0	0.07	0.06	0.43	0.36
2-3	7/ 2/76	7.5-15			0.0	0.0	0.0	0.0	0.0	0.0
2-3	7/ 2/76	15-30			0.0	0.0	0.0	0.0	0.0	0.0
		TOTAL				0.0		0.12		0.65
		MEAN				0.0		0.16		0.55
		STANDARD DEVIATION				0.0		0.04		0.27

TABLE G2- 2. CONCLUDED

SITE	DATE	DEPTH CM	SAMPLE WT. GM	H2O %	PROPACHLOR PPM	PROPACHLOR KG/HA	CYANAZINE PPM	CYANAZINE KG/HA	PARAQUAT PPM	PARAQUAT KG/HA
2-1	7/27/76	0-1	58.8	9.4	0.0	0.0	0.20	0.03	1.20	0.15
2-1	7/27/76	1-7.5	358.9	15.4	0.0	0.0	0.0	0.0	0.25	0.20
2-1	7/27/76	7.5-15			0.0	0.0	0.0	0.0	0.0	0.0
2-1	7/27/76	15-30			0.0	0.0	0.0	0.0	0.0	0.0
		TOTAL				0.0		0.33		0.35
2-2	7/27/76	0-1	59.1	10.2	0.0	0.0	0.20	0.03	1.87	0.24
2-2	7/27/76	1-7.5	387.7	14.7	0.0	0.0	0.0	0.0	0.31	0.26
2-2	7/27/76	7.5-15			0.0	0.0	0.0	0.0	0.0	0.0
2-2	7/27/76	15-30			0.0	0.0	0.0	0.0	0.0	0.0
		TOTAL				0.0		0.03		0.51
2-3	7/27/76	0-1	52.6	8.0	0.0	0.0	0.16	0.02	1.07	0.12
2-3	7/27/76	1-7.5	357.0	13.3	0.0	0.0	0.0	0.0	0.59	0.46
2-3	7/27/76	7.5-15			0.0	0.0	0.0	0.0	0.0	0.0
2-3	7/27/76	15-30			0.0	0.0	0.0	0.0	0.0	0.0
		TOTAL				0.0		0.02		0.59
		MEAN				0.0		0.02		0.48
		STANDARD DEVIATION				0.0		0.00		0.12
2-1	8/31/76	0-1	65.9	3.2	0.0	0.0	0.12	0.02	1.64	0.24
2-1	8/31/76	1-7.5	350.9	14.0	0.0	0.0	0.03	0.02	0.0	0.0
2-1	8/31/76	7.5-15			0.0	0.0	0.0	0.0	0.0	0.0
2-1	8/31/76	15-30			0.0	0.0	0.0	0.0	0.0	0.0
		TOTAL				0.0		0.04		0.24
2-2	8/31/76	0-1	61.9	3.3	0.0	0.0	0.09	0.01	2.02	0.27
2-2	8/31/76	1-7.5	351.8	13.7	0.0	0.0	0.03	0.02	0.0	0.0
2-2	8/31/76	7.5-15			0.0	0.0	0.0	0.0	0.0	0.0
2-2	8/31/76	15-30			0.0	0.0	0.0	0.0	0.0	0.0
		TOTAL				0.0		0.04		0.27
2-3	8/31/76	0-1	58.7	3.0	0.0	0.0	0.06	0.01	1.98	0.25
2-3	8/31/76	1-7.5	355.2	12.6	0.0	0.0	0.0	0.0	0.0	0.0
2-3	8/31/76	7.5-15			0.0	0.0	0.0	0.0	0.0	0.0
2-3	8/31/76	15-30			0.0	0.0	0.0	0.0	0.0	0.0
		TOTAL				0.0		0.01		0.25
		MEAN				0.0		0.03		0.26
		STANDARD DEVIATION				0.0		0.02		0.02

TABLE G2- 3. FOUR MILE CREEK WATERSHED HERBICIDE MEASUREMENTS IN CORE SOIL SAMPLES FOR 1977 SITE 1 -- CORN

SITE	DATE	DEPTH CM	SAMPLE WT. GM	H2O %	PROPACHLOR PPM	PROPACHLOR KG/HA	CYANAZINE PPM	CYANAZINE KG/HA	PARAQUAT PPM	PARAQUAT KG/HA
1-1	4/22/77	0-1	57.8	22.4	0.0	0.0	0.0	0.0	1.26	0.16
1-1	4/22/77	1-7.5	320.2	27.7	0.0	0.0	0.0	0.0	0.92	0.65
1-1	4/22/77	7.5-15			0.0	0.0	0.0	0.0	0.0	0.0
1-1	4/22/77	15-30			0.0	0.0	0.0	0.0	0.0	0.0
		TOTAL				0.0		0.0		0.81
1-2	4/22/77	0-1	64.6	16.5	0.0	0.0	0.0	0.0	1.29	0.18
1-2	4/22/77	1-7.5	318.5	26.8	0.0	0.0	0.0	0.0	1.13	0.79
1-2	4/22/77	7.5-15			0.0	0.0	0.0	0.0	0.0	0.0
1-2	4/22/77	15-30			0.0	0.0	0.0	0.0	0.0	0.0
		TOTAL				0.0		0.0		0.97
1-3	4/22/77	0-1	67.5	15.7	0.0	0.0	0.0	0.0	1.38	0.20
1-3	4/22/77	1-7.5	313.9	25.6	0.0	0.0	0.0	0.0	1.45	1.00
1-3	4/22/77	7.5-15			0.0	0.0	0.0	0.0	0.0	0.0
1-3	4/22/77	15-30			0.0	0.0	0.0	0.0	0.0	0.0
		TOTAL				0.0		0.0		1.20
		MEAN				0.0		0.0		0.99
		STANDARD DEVIATION				0.0		0.0		0.20
1-1	5/23/77	0-1	65.1	12.2	0.67	0.10	2.68	0.38	6.22	0.89
1-1	5/23/77	1-7.5	365.3	22.6	0.0	0.0	0.04	0.03	1.46	1.17
1-1	5/23/77	7.5-15			0.0	0.0	0.0	0.0	0.0	0.0
1-1	5/23/77	15-30			0.0	0.0	0.0	0.0	0.0	0.0
		TOTAL				0.10		0.41		2.06
1-2	5/23/77	0-1	36.9	10.1	2.01	0.25	3.16	0.39	4.51	0.56
1-2	5/23/77	1-7.5	343.1	22.1	0.0	0.0	0.10	0.08	1.54	1.16
1-2	5/23/77	7.5-15			0.0	0.0	0.0	0.0	0.0	0.0
1-2	5/23/77	15-30			0.0	0.0	0.0	0.0	0.0	0.0
		TOTAL				0.25		0.47		1.72
1-3	5/23/77	0-1	49.3	11.9	2.05	0.22	5.17	0.56	12.72	1.38
1-3	5/23/77	1-7.5	324.6	20.2	0.0	0.0	0.21	0.15	1.18	0.84
1-3	5/23/77	7.5-15			0.0	0.0	0.0	0.0	0.20	0.21
1-3	5/23/77	15-30			0.0	0.0	0.0	0.0	0.0	0.0
		TOTAL				0.22		0.71		2.43
		MEAN				0.19		0.53		2.07
		STANDARD DEVIATION				0.08		0.16		0.35

SITE	DATE	DEPTH CM	SAMPLE WT. GM	H2O %	PROPACHLOR PPM	PROPACHLOR KG/HA	CYANAZINE PPM	CYANAZINE KG/HA	PARAQUAT PPM	PARAQUAT KG/HA
1-1	5/31/77	0-1	57.0	8.8	0.25	0.03	4.04	0.50	10.32	1.29
1-1	5/31/77	1-7.5	320.5	19.4	0.0	0.0	0.21	0.15	1.33	0.93
1-1	5/31/77	7.5-15			0.0	0.0	0.05	0.05	0.0	0.0
1-1	5/31/77	15-30			0.0	0.0	0.0	0.0	0.0	0.0
		TOTAL				0.03		0.71		2.22
1-2	5/31/77	0-1	61.6	8.4	0.34	0.05	4.06	0.55	8.63	1.17
1-2	5/31/77	1-7.5	350.9	18.0	0.0	0.0	0.21	0.16	1.54	1.19
1-2	5/31/77	7.5-15			0.0	0.0	0.0	0.0	0.0	0.0
1-2	5/31/77	15-30			0.0	0.0	0.0	0.0	0.0	0.0
		TOTAL				0.05		0.71		2.35
1-3	5/31/77	0-1	54.0	6.7	0.61	0.07	3.51	0.42	10.60	1.26
1-3	5/31/77	1-7.5	339.8	16.6	0.0	0.0	0.16	0.12	1.40	1.04
1-3	5/31/77	7.5-15			0.0	0.0	0.0	0.0	0.0	0.0
1-3	5/31/77	15-30			0.0	0.0	0.0	0.0	0.0	0.0
		TOTAL				0.07		0.54		2.30
		MEAN				0.05		0.65		2.29
		STANDARD DEVIATION				0.02		0.10		0.06
1-1	6/10/77	0-1	72.7	8.0	0.10	0.02	1.59	0.25	4.46	0.71
1-1	6/10/77	1-7.5	333.3	19.6	0.0	0.0	0.14	0.10	1.48	1.08
1-1	6/10/77	7.5-15			0.0	0.0	0.0	0.0	0.0	0.0
1-1	6/10/77	15-30			0.0	0.0	0.0	0.0	0.0	0.0
		TOTAL				0.02		0.36		1.79
1-2	6/10/77	0-1	64.8	4.4	0.27	0.04	2.09	0.30	5.06	0.72
1-2	6/10/77	1-7.5	358.9	16.8	0.0	0.0	0.11	0.09	1.79	1.41
1-2	6/10/77	7.5-15			0.0	0.0	0.0	0.0	0.0	0.0
1-2	6/10/77	15-30			0.0	0.0	0.0	0.0	0.0	0.0
		TOTAL				0.04		0.38		2.13
1-3	6/10/77	0-1	64.2	2.8	0.0	0.0	1.68	0.26	4.35	0.61
1-3	6/10/77	1-7.5	327.7	15.6	0.0	0.0	0.90	0.65	2.54	1.83
1-3	6/10/77	7.5-15			0.0	0.0	0.0	0.0	0.0	0.0
1-3	6/10/77	15-30			0.0	0.0	0.0	0.0	0.0	0.0
		TOTAL				0.0		0.91		2.44
		MEAN				0.02		0.55		2.12
		STANDARD DEVIATION				0.02		0.31		0.32

TABLE 32- 3. CONCLUDED

SITE	DATE	DEPTH CM	SAMPLE WT, GM	H2O %	PROPACHLOR PPM	PROPACHLOR KG/HA	CYANAZINE PPM	CYANAZINE KG/HA	PARAQUAT PPM	PARAQUAT KG/HA
1-1	6/20/77	0-1	65.1	13.4	0.0	0.0	4.54	0.65	7.56	1.08
1-1	6/20/77	1-7.5	259.9	20.2	0.0	0.0	1.00	0.57	2.44	1.39
1-1	6/20/77	7.5-15			0.0	0.0	0.0	0.0	0.0	0.0
1-1	6/20/77	15-30			0.0	0.0	0.0	0.0	0.0	0.0
		TOTAL				0.0		1.22		2.47
1-2	6/20/77	0-1	63.2	10.1	0.0	0.0	2.83	0.39	3.52	0.49
1-2	6/20/77	1-7.5	339.6	19.2	0.0	0.0	0.71	0.53	1.30	0.97
1-2	6/20/77	7.5-15			0.0	0.0	0.0	0.0	0.0	0.0
1-2	6/20/77	15-30			0.0	0.0	0.0	0.0	0.0	0.0
		TOTAL				0.0		0.92		1.46
1-3	6/20/77	0-1	61.5	6.9	0.0	0.0	2.14	0.29	3.37	0.45
1-3	6/20/77	1-7.5	333.9	17.3	0.0	0.0	0.81	0.59	1.91	1.40
1-3	6/20/77	7.5-15			0.0	0.0	0.0	0.0	0.0	0.0
1-3	6/20/77	15-30			0.0	0.0	0.0	0.0	0.0	0.0
		TOTAL				0.0		0.88		1.85
		MEAN				0.0		1.01		1.93
		STANDARD DEVIATION				0.0		0.18		0.51
1-1	7/ 6/77	0-1	66.8	5.8	0.0	0.0	1.63	0.24	5.59	0.82
1-1	7/ 6/77	1-7.5	337.2	14.4	0.0	0.0	0.47	0.35	2.28	1.69
1-1	7/ 6/77	7.5-15			0.0	0.0	0.0	0.0	0.0	0.0
1-1	7/ 6/77	15-30			0.0	0.0	0.0	0.0	0.0	0.0
		TOTAL				0.0		0.59		2.51
1-2	7/ 6/77	0-1	58.3	6.6	0.0	0.0	2.27	0.29	6.50	0.83
1-2	7/ 6/77	1-7.5	339.3	15.1	0.0	0.0	0.50	0.37	2.07	1.56
1-2	7/ 6/77	7.5-15			0.0	0.0	0.0	0.0	0.0	0.0
1-2	7/ 6/77	15-30			0.0	0.0	0.0	0.0	0.0	0.0
		TOTAL				0.0		0.66		2.39
1-3	7/ 6/77	0-1	67.4	6.5	0.0	0.0	2.35	0.35	4.66	0.69
1-3	7/ 6/77	1-7.5	293.7	13.4	0.0	0.0	0.35	0.23	1.65	1.06
1-3	7/ 6/77	7.5-15			0.0	0.0	0.0	0.0	0.0	0.0
1-3	7/ 6/77	15-30			0.0	0.0	0.0	0.0	0.0	0.0
		TOTAL				0.0		0.57		1.75
		MEAN				0.0		0.61		2.21
		STANDARD DEVIATION				0.0		0.05		0.40

SITE	DATE	DEPTH CM	SAMPLE WT, GM	H2O %	PROPACHLOR PPM	PROPACHLOR KG/HA	CYANAZINE PPM	CYANAZINE KG/HA	PARAQUAT PPM	PARAQUAT KG/HA
1-1	8/18/77	0-1	52.3	27.7	0.0	0.0	0.22	0.03	4.93	0.57
1-1	8/18/77	1-7.5	323.9	25.2	0.0	0.0	0.09	0.06	1.95	1.39
1-1	8/18/77	7.5-15			0.0	0.0	0.0	0.0	0.20	0.30
1-1	8/18/77	15-30			0.0	0.0	0.0	0.0	0.0	0.0
		TOTAL				0.0		0.09		2.25
1-2	8/18/77	0-1	57.8	20.6	0.0	0.0	0.16	0.02	5.07	0.64
1-2	8/18/77	1-7.5	344.2	24.7	0.0	0.0	0.03	0.02	1.60	1.21
1-2	8/18/77	7.5-15			0.0	0.0	0.0	0.0	0.0	0.0
1-2	8/18/77	15-30			0.0	0.0	0.0	0.0	0.0	0.0
		TOTAL				0.0		0.04		1.85
1-3	8/18/77	0-1	58.8	20.3	0.0	0.0	0.27	0.03	4.33	0.56
1-3	8/18/77	1-7.5	305.3	23.4	0.0	0.0	0.11	0.07	1.62	1.08
1-3	8/18/77	7.5-15			0.0	0.0	0.0	0.0	0.14	0.15
1-3	8/18/77	15-30			0.0	0.0	0.0	0.0	0.0	0.0
		TOTAL				0.0		0.11		1.79
		MEAN				0.0		0.08		1.97
		STANDARD DEVIATION				0.0		0.03		0.25

TABLE G2-4. FOUR MILE CREEK WATERSHED HERBICIDE MEASUREMENTS IN CORE SOIL SAMPLES FOR 1977 SITE 2 -- SOYBEANS

SITE	DATE	DEPTH CM	SAMPLE WT. GM	H2O %	METRIBUZIN PPM	METRIBUZIN KG/HA	ALACHLOR PPM	ALACHLOR KG/HA	PARAQUAT PPM	PARAQUAT KG/HA
2-1	5/10/77	0-1	73.9	13.0	0.0	0.0	0.0	0.0	0.0	0.0
2-1	5/10/77	1-7.5	346.3	22.9	0.0	0.0	0.0	0.0	0.0	0.0
2-1	5/10/77	7.5-15			0.0	0.0	0.0	0.0	0.53	0.56
2-1	5/10/77	15-30			0.0	0.0	0.0	0.0	0.0	0.0
		TOTAL				0.0		0.0		0.56
2-2	5/10/77	0-1	89.3	9.7	0.0	0.0	0.0	0.0	0.0	0.0
2-2	5/10/77	1-7.5	293.0	22.2	0.0	0.0	0.0	0.0	0.0	0.0
2-2	5/10/77	7.5-15			0.0	0.0	0.0	0.0	0.47	0.49
2-2	5/10/77	15-30			0.0	0.0	0.0	0.0	0.0	0.0
		TOTAL				0.0		0.0		0.49
2-3	5/10/77	0-1	71.1	9.9	0.0	0.0	0.0	0.0	0.0	0.0
2-3	5/10/77	1-7.5	329.6	20.6	0.0	0.0	0.0	0.0	0.0	0.0
2-3	5/10/77	7.5-15			0.0	0.0	0.0	0.0	0.71	0.75
2-3	5/10/77	15-30			0.0	0.0	0.0	0.0	0.0	0.0
		TOTAL				0.0		0.0		0.75
		MEAN				0.0		0.0		0.60
		STANDARD DEVIATION				0.0		0.0		0.13
2-1	5/31/77	0-1	48.2	8.3	0.18	0.02	5.48	0.58	6.83	0.72
2-1	5/31/77	1-7.5	347.1	22.0	0.0	0.0	0.0	0.0	0.88	0.67
2-1	5/31/77	7.5-15			0.0	0.0	0.0	0.0	0.91	0.96
2-1	5/31/77	15-30			0.0	0.0	0.0	0.0	0.0	0.0
		TOTAL				0.02		0.58		2.35
2-2	5/31/77	0-1	57.0	7.3	0.21	0.03	8.52	1.06	7.65	0.96
2-2	5/31/77	1-7.5	369.6	20.9	0.0	0.0	0.13	0.11	0.98	0.79
2-2	5/31/77	7.5-15			0.0	0.0	0.08	0.08	0.72	0.76
2-2	5/31/77	15-30			0.0	0.0	0.02	0.04	0.0	0.0
		TOTAL				0.03		1.30		2.51
2-3	5/31/77	0-1	52.3	7.9	0.11	0.01	2.87	0.33	5.57	0.64
2-3	5/31/77	1-7.5	344.1	20.8	0.0	0.0	0.08	0.06	0.93	0.70
2-3	5/31/77	7.5-15			0.0	0.0	0.0	0.0	0.66	0.69
2-3	5/31/77	15-30			0.0	0.0	0.0	0.0	0.43	0.90
		TOTAL				0.01		0.39		2.94
		MEAN				0.02		0.75		2.60
		STANDARD DEVIATION				0.01		0.48		0.31
2-1	5/23/77	0-1	57.8	10.4	0.46	0.06	7.84	0.99	11.10	1.41
2-1	5/23/77	1-7.5	338.8	22.7	0.02	0.01	0.36	0.27	0.0	0.0
2-1	5/23/77	7.5-15			0.0	0.0	0.15	0.16	0.57	0.60
2-1	5/23/77	15-30			0.0	0.0	0.0	0.0	0.43	0.90
		TOTAL				0.07		1.42		2.91
2-2	5/23/77	0-1	64.0	12.9	0.29	0.04	7.33	1.03	8.67	1.22
2-2	5/23/77	1-7.5	351.9	21.1	0.02	0.02	0.31	0.24	1.21	0.93
2-2	5/23/77	7.5-15			0.0	0.0	0.0	0.0	0.68	0.71
2-2	5/23/77	15-30			0.0	0.0	0.0	0.0	0.0	0.0
		TOTAL				0.06		1.27		2.86
2-3	5/23/77	0-1	53.8	9.0	0.32	0.04	8.76	1.03	9.97	1.18
2-3	5/23/77	1-7.5	345.8	21.1	0.02	0.02	0.27	0.20	0.0	0.0
2-3	5/23/77	7.5-15			0.0	0.0	0.0	0.0	0.42	0.44
2-3	5/23/77	15-30			0.0	0.0	0.0	0.0	0.26	0.55
		TOTAL				0.05		1.24		2.16
		MEAN				0.06		1.31		2.65
		STANDARD DEVIATION				0.01		0.10		0.42
2-1	6/10/77	0-1	29.0	3.6	0.0	0.0	3.26	0.21	4.01	0.25
2-1	6/10/77	1-7.5	344.2	17.1	0.0	0.0	1.14	0.86	1.61	1.22
2-1	6/10/77	7.5-15			0.0	0.0	0.0	0.0	0.49	0.51
2-1	6/10/77	15-30			0.0	0.0	0.0	0.0	0.39	0.82
		TOTAL				0.0		1.07		2.80
2-2	6/10/77	0-1	56.3	3.3	0.0	0.0	2.89	0.36	5.60	0.69
2-2	6/10/77	1-7.5	384.4	16.4	0.0	0.0	1.66	1.40	1.42	1.20
2-2	6/10/77	7.5-15			0.0	0.0	0.07	0.07	0.74	0.78
2-2	6/10/77	15-30			0.0	0.0	0.0	0.0	0.24	0.50
		TOTAL				0.0		1.83		3.17
2-3	6/10/77	0-1	54.9	3.4	0.0	0.0	3.63	0.44	4.47	0.54
2-3	6/10/77	1-7.5	356.0	16.6	0.0	0.0	2.34	1.83	1.49	1.16
2-3	6/10/77	7.5-15			0.0	0.0	0.0	0.0	0.49	0.51
2-3	6/10/77	15-30			0.0	0.0	0.0	0.0	0.32	0.67
		TOTAL				0.0		2.26		2.89
		MEAN				0.0		1.72		2.95
		STANDARD DEVIATION				0.0		0.61		0.19

TABLE G2- 4. CONCLUDED

SITE	DATE	DEPTH CM	SAMPLE WT. GM	H2O %	METRIBUZIN PPM	METRIBUZIN KG/HA	ALACHLOR PPM	ALACHLOR KG/HA	PARAQUAT PPM	PARAQUAT KG/HA
2-1	6/20/77	0-1	49.8	6.3	0.0	0.0	0.56	0.06	2.56	0.28
2-1	6/20/77	1-7.5	330.2	19.8	0.0	0.0	0.04	0.03	0.51	0.37
2-1	6/20/77	7.5-15			0.0	0.0	0.0	0.0	0.44	0.46
2-1	6/20/77	15-30			0.0	0.0	0.0	0.0	0.23	0.48
		TOTAL				0.0		0.09		1.59
2-2	6/20/77	0-1	53.8	5.4	0.0	0.0	0.82	0.10	1.81	0.21
2-2	6/20/77	1-7.5	364.4	18.8	0.0	0.0	0.0	0.0	0.39	0.31
2-2	6/20/77	7.5-15			0.0	0.0	0.0	0.0	0.49	0.51
2-2	6/20/77	15-30			0.0	0.0	0.0	0.0	0.0	0.0
		TOTAL				0.0		0.10		1.04
2-3	6/20/77	0-1	59.5	5.9	0.0	0.0	0.65	0.08	1.44	0.19
2-3	6/20/77	1-7.5	317.8	17.9	0.0	0.0	0.0	0.0	0.27	0.19
2-3	6/20/77	7.5-15			0.0	0.0	0.0	0.0	0.33	0.35
2-3	6/20/77	15-30			0.0	0.0	0.0	0.0	0.0	0.0
		TOTAL				0.0		0.08		0.72
		MEAN				0.0		0.09		1.12
		STANDARD DEVIATION				0.0		0.01		0.44
2-1	7/ 6/77	0-1	46.9	6.8	0.0	0.0	0.28	0.03	2.35	0.24
2-1	7/ 6/77	1-7.5	355.5	17.4	0.0	0.0	0.26	0.20	0.97	0.76
2-1	7/ 6/77	7.5-15			0.0	0.0	0.0	0.0	0.57	0.60
2-1	7/ 6/77	15-30			0.0	0.0	0.0	0.0	0.0	0.0
		TOTAL				0.0		0.23		1.60
2-2	7/ 6/77	0-1	59.1	6	0.0	0.0	0.39	0.05	2.42	0.31
2-2	7/ 6/77	1-7.5	408.5	16	0.0	0.0	0.0	0.0	0.63	0.56
2-2	7/ 6/77	7.5-15			0.0	0.0	0.0	0.0	0.71	0.75
2-2	7/ 6/77	15-30			0.0	0.0	0.0	0.0	0.81	1.70
		TOTAL				0.0		0.05		3.32
2-3	7/ 6/77	0-1	57.3	5.3	0.0	0.0	0.43	0.05	3.06	0.38
2-3	7/ 6/77	1-7.5	362.8	15.1	0.0	0.0	0.08	0.06	1.10	0.88
2-3	7/ 6/77	7.5-15			0.0	0.0	0.0	0.0	0.43	0.45
2-3	7/ 6/77	15-30			0.0	0.0	0.0	0.0	0.21	0.44
		TOTAL				0.0		0.12		2.15
		MEAN				0.0		0.13		2.36
		STANDARD DEVIATION				0.0		0.09		0.88

SITE	DATE	DEPTH CM	SAMPLE WT. GM	H2O %	METRIBUZIN PPM	METRIBUZIN KG/HA	ALACHLOR PPM	ALACHLOR KG/HA	PARAQUAT PPM	PARAQUAT KG/HA
2-1	8/18/77	0-1	68.5	25.9	0.0	0.0	0.03	0.00	2.47	0.37
2-1	8/18/77	1-7.5	358.7	25.5	0.0	0.0	0.0	0.0	0.73	0.57
2-1	8/18/77	7.5-15			0.0	0.0	0.0	0.0	0.36	0.38
2-1	8/18/77	15-30			0.0	0.0	0.0	0.0	0.0	0.0
		TOTAL				0.0		0.00		1.32
2-2	8/18/77	0-1	62.2	24.0	0.0	0.0	0.0	0.0	2.32	0.32
2-2	8/18/77	1-7.5	384.2	24.1	0.0	0.0	0.0	0.0	0.87	0.73
2-2	8/18/77	7.5-15			0.0	0.0	0.0	0.0	0.60	0.63
2-2	8/18/77	15-30			0.0	0.0	0.0	0.0	0.14	0.29
		TOTAL				0.0		0.0		1.97
2-3	8/18/77	0-1	59.3	22.0	0.0	0.0	0.0	0.0	2.33	0.30
2-3	8/18/77	1-7.5	363.6	22.5	0.0	0.0	0.0	0.0	0.70	0.56
2-3	8/18/77	7.5-15			0.0	0.0	0.0	0.0	0.39	0.41
2-3	8/18/77	15-30			0.0	0.0	0.0	0.0	0.0	0.0
		TOTAL				0.0		0.0		1.27
		MEAN				0.0		0.00		1.52
		STANDARD DEVIATION				0.0		0.00		0.39

TABLE G2- 5. FOUR MILE CREEK WATERSHED HERBICIDE MEASUREMENTS IN CORE SOIL SAMPLES FOR 1978 SITE 1 -- SOYBEANS

SITE	DATE	DEPTH CM	SAMPLE WT. GM	H2O %	METRIBUZIN PPM	METRIBUZIN KG/HA	ALACHLOR PPM	ALACHLOR KG/HA	PARAQUAT PPM	PARAQUAT KG/HA
1-1	5/18/78	0-1	65.2	7.8	0.0	0.0	0.0	0.0	0.73	0.10
1-1	5/18/78	1-7.5	295.9	26.3	0.0	0.0	0.0	0.0	0.70	0.45
1-1	5/18/78	7.5-15			0.0	0.0	0.0	0.0	1.78	1.87
1-1	5/18/78	15-30			0.0	0.0	0.0	0.0	0.38	0.80
		TOTAL				0.0		0.0		3.23
1-2	5/18/78	0-1	73.7	6.5	0.0	0.0	0.0	0.0	1.28	0.21
1-2	5/18/78	1-7.5	315.9	25.9	0.0	0.0	0.0	0.0	0.87	0.60
1-2	5/18/78	7.5-15			0.0	0.0	0.0	0.0	1.12	1.18
1-2	5/18/78	15-30			0.0	0.0	0.0	0.0	0.0	0.0
		TOTAL				0.0		0.0		1.99
1-3	5/18/78	0-1	67.0	7.4	0.0	0.0	0.0	0.0	0.81	0.12
1-3	5/18/78	1-7.5	273.7	25.1	0.0	0.0	0.0	0.0	0.99	0.59
1-3	5/18/78	7.5-15			0.0	0.0	0.0	0.0	1.66	1.74
1-3	5/18/78	15-30			0.0	0.0	0.0	0.0	0.63	1.32
		TOTAL				0.0		0.0		3.78
		MEAN				0.0		0.0		3.00
		STANDARD DEVIATION				0.0		0.0		0.92
1-1	5/28/78	0-1	66.1	34.1	0.32	0.05	2.55	0.37	9.10	1.32
1-1	5/28/78	1-7.5	260.8	31.7	0.0	0.0	0.0	0.0	1.34	0.77
1-1	5/28/78	7.5-15			0.0	0.0	0.0	0.0	1.30	1.37
1-1	5/28/78	15-30			0.0	0.0	0.0	0.0	0.44	0.92
		TOTAL				0.05		0.37		4.37
1-2	5/28/78	0-1	65.4	32.3	0.40	0.06	2.48	0.36	6.55	0.94
1-2	5/28/78	1-7.5	279.4	29.9	0.0	0.0	0.0	0.0	1.95	1.19
1-2	5/28/78	7.5-15			0.0	0.0	0.0	0.0	2.16	2.27
1-2	5/28/78	15-30			0.0	0.0	0.0	0.0	0.44	0.92
		TOTAL				0.06		0.36		5.33
1-3	5/28/78	0-1	68.8	30.5	0.64	0.10	0.82	0.12	7.99	1.20
1-3	5/28/78	1-7.5	271.7	29.5	0.0	0.0	0.0	0.0	0.83	0.49
1-3	5/28/78	7.5-15			0.0	0.0	0.0	0.0	1.30	1.37
1-3	5/28/78	15-30			0.0	0.0	0.0	0.0	0.44	0.92
		TOTAL				0.10		0.12		3.99
		MEAN				0.07		0.28		4.36
		STANDARD DEVIATION				0.03		0.14		0.69

SITE	DATE	DEPTH CM	SAMPLE WT. GM	H2O %	METRIBUZIN PPM	METRIBUZIN KG/HA	ALACHLOR PPM	ALACHLOR KG/HA	PARAQUAT PPM	PARAQUAT KG/HA
1-1	6/ 1/78	0-1	78.0	28.6	0.60	0.10	3.36	0.57	6.09	1.34
1-1	6/ 1/78	1-7.5	287.7	28.9	0.0	0.0	0.0	0.0	1.70	1.07
1-1	6/ 1/78	7.5-15			0.0	0.0	0.0	0.0	1.09	1.14
1-1	6/ 1/78	15-30			0.0	0.0	0.0	0.0	0.0	0.0
		TOTAL				0.10		0.57		3.26
1-2	6/ 1/78	0-1	63.2	24.8	0.16	0.02	3.69	0.51	8.14	1.13
1-2	6/ 1/78	1-7.5	230.1	27.2	0.0	0.0	0.0	0.0	1.33	0.67
1-2	6/ 1/78	7.5-15			0.0	0.0	0.0	0.0	1.21	1.27
1-2	6/ 1/78	15-30			0.0	0.0	0.0	0.0	0.30	0.63
		TOTAL				0.02		0.51		3.70
1-3	6/ 1/78	0-1	61.5	23.8	0.31	0.04	9.20	1.24	7.69	1.06
1-3	6/ 1/78	1-7.5	251.0	26.3	0.0	0.0	0.0	0.0	1.38	0.76
1-3	6/ 1/78	7.5-15			0.0	0.0	0.0	0.0	1.11	1.17
1-3	6/ 1/78	15-30			0.0	0.0	0.0	0.0	0.57	1.20
		TOTAL				0.04		1.24		4.19
		MEAN				0.06		0.78		3.72
		STANDARD DEVIATION				0.04		0.40		0.46
1-1	6/12/78	0-1	81.0	5.0	0.80	0.14	3.77	0.67	9.20	1.65
1-1	6/12/78	1-7.5	350.1	23.3	0.0	0.0	0.0	0.0	1.60	1.23
1-1	6/12/78	7.5-15			0.0	0.0	0.0	0.0	1.66	1.74
1-1	6/12/78	15-30			0.0	0.0	0.0	0.0	0.81	1.70
		TOTAL				0.14		0.67		6.32
1-2	6/12/78	0-1	101.1	5.3	1.47	0.33	2.34	0.52	8.26	1.83
1-2	6/12/78	1-7.5	532.4	24.4	0.0	0.0	0.0	0.0	1.90	2.22
1-2	6/12/78	7.5-15			0.0	0.0	0.0	0.0	2.09	2.19
1-2	6/12/78	15-30			0.0	0.0	0.0	0.0	0.38	0.80
		TOTAL				0.33		0.52		7.04
1-3	6/12/78	0-1	77.1	5.8	0.19	0.03	2.29	0.39	9.61	1.62
1-3	6/12/78	1-7.5	352.2	23.2	0.0	0.0	0.0	0.0	1.35	1.04
1-3	6/12/78	7.5-15			0.0	0.0	0.0	0.0	2.48	2.60
1-3	6/12/78	15-30			0.0	0.0	0.0	0.0	0.85	1.79
		TOTAL				0.03		0.39		7.06
		MEAN				0.17		0.53		6.81
		STANDARD DEVIATION				0.15		0.14		0.42

TABLE G2- 5. CONCLUDED

SITE	DATE	DEPTH CM	SAMPLE WT. GM	H2O %	METRIBUZIN PPM	METRIBUZIN KG/HA	ALACHLOR PPM	ALACHLOR KG/HA	PARAQUAT PPM	PARAQUAT KG/HA
1-1	6/16/78	0-1	64.4	16.6	0.51	0.07	2.07	0.29	9.15	1.29
1-1	6/16/78	1-7.5	223.7	24.7	0.0	0.0	0.0	0.0	1.56	0.77
1-1	6/16/78	7.5-15			0.0	0.0	0.0	0.0	1.17	1.23
1-1	6/16/78	15-30			0.0	0.0	0.0	0.0	0.0	0.0
		TOTAL				0.07		0.29		3.29
1-2	6/16/78	0-1	62.3	17.2	0.0	0.0	0.0	0.0	6.86	0.94
1-2	6/16/78	1-7.5	248.7	24.8	0.0	0.0	0.0	0.0	1.87	1.02
1-2	6/16/78	7.5-15			0.0	0.0	0.0	0.0	2.05	2.15
1-2	6/16/78	15-30			0.0	0.0	0.0	0.0	0.0	0.0
		TOTAL				0.0		0.0		4.11
1-3	6/16/78	0-1	65.9	21.4	0.24	0.03	2.54	0.37	9.57	1.38
1-3	6/16/78	1-7.5	256.3	24.4	0.0	0.0	0.0	0.0	1.87	1.05
1-3	6/16/78	7.5-15			0.0	0.0	0.0	0.0	1.23	1.29
1-3	6/16/78	15-30			0.0	0.0	0.0	0.0	0.41	0.86
		TOTAL				0.03		0.37		4.59
		MEAN				0.04		0.22		3.99
		STANDARD DEVIATION				0.04		0.19		0.66
1-1	6/21/78	0-1	64.2	18.4	0.27	0.04	1.37	0.19	7.45	1.05
1-1	6/21/78	1-7.5	245.1	25.1	0.14	0.06	0.51	0.27	1.38	0.74
1-1	6/21/78	7.5-15			0.0	0.0	0.0	0.0	1.62	1.70
1-1	6/21/78	15-30			0.0	0.0	0.0	0.0	0.52	1.09
		TOTAL				0.11		0.47		4.58
1-2	6/21/78	0-1	64.1	17.8	0.0	0.0	0.0	0.0	6.85	0.96
1-2	6/21/78	1-7.5	233.0	24.8	0.0	0.0	0.0	0.0	1.80	0.92
1-2	6/21/78	7.5-15			0.0	0.0	0.0	0.0	1.91	2.01
1-2	6/21/78	15-30			0.0	0.0	0.0	0.0	0.44	0.92
		TOTAL				0.0		0.0		4.81
1-3	6/21/78	0-1	62.1	21.6	0.41	0.06	1.76	0.24	10.07	1.37
1-3	6/21/78	1-7.5	237.2	24.6	0.0	0.0	0.0	0.0	0.99	0.51
1-3	6/21/78	7.5-15			0.0	0.0	0.0	0.0	1.37	1.44
1-3	6/21/78	15-30			0.0	0.0	0.0	0.0	0.22	0.46
		TOTAL				0.06		0.24		3.79
		MEAN				0.06		0.24		4.39
		STANDARD DEVIATION				0.06		0.23		0.54

SITE	DATE	DEPTH CM	SAMPLE WT. GM	H2O %	METRIBUZIN PPM	METRIBUZIN KG/HA	ALACHLOR PPM	ALACHLOR KG/HA	PARAQUAT PPM	PARAQUAT KG/HA
1-1	8/ 1/78	0-1	70.4	14.7	0.0	0.0	0.0	0.0	0.36	0.06
1-1	8/ 1/78	1-7.5	200.6	21.9	0.0	0.0	0.0	0.0	2.19	0.96
1-1	8/ 1/78	7.5-15			0.0	0.0	0.0	0.0	1.32	1.39
1-1	8/ 1/78	15-30			0.0	0.0	0.0	0.0	0.0	0.0
		TOTAL				0.0		0.0		2.40
1-2	8/ 1/78	0-1	67.6	11.9	0.0	0.0	0.0	0.0	2.56	0.38
1-2	8/ 1/78	1-7.5	200.2	20.7	0.0	0.0	0.0	0.0	1.96	0.86
1-2	8/ 1/78	7.5-15			0.0	0.0	0.0	0.0	2.23	2.34
1-2	8/ 1/78	15-30			0.0	0.0	0.0	0.0	0.0	0.0
		TOTAL				0.0		0.0		3.58
1-3	8/ 1/78	0-1	77.0	11.7	0.0	0.0	0.0	0.0	3.12	0.53
1-3	8/ 1/78	1-7.5	205.7	20.1	0.0	0.0	0.0	0.0	1.47	0.66
1-3	8/ 1/78	7.5-15			0.0	0.0	0.0	0.0	2.20	2.31
1-3	8/ 1/78	15-30			0.0	0.0	0.0	0.0	0.31	0.65
		TOTAL				0.0		0.0		4.15
		MEAN				0.0		0.0		3.38
		STANDARD DEVIATION				0.0		0.0		0.89

TABLE G2- 6. FOUR MILE CREEK WATERSHED HERBICIDE MEASUREMENTS IN CORE SOIL SAMPLES FOR 1978 SITE 2 -- CORN

SITE	DATE	DEPTH CM	SAMPLE WT. GM	H2O %	PROPACHLOR PPM	PROPACHLOR KG/HA	CYANAZINE PPM	CYANAZINE KG/HA	PARAQUAT PPM	PARAQUAT KG/HA
2-1	5/ 2/78	0-1	63.7	3.1	0.0	0.0	0.0	0.0	1.96	0.27
2-1	5/ 2/78	1-7.5	257.9	19.7	0.0	0.0	0.0	0.0	1.89	1.07
2-1	5/ 2/78	7.5-15			0.0	0.0	0.0	0.0	0.67	0.70
2-1	5/ 2/78	15-30			0.0	0.0	0.0	0.0	0.0	0.0
		TOTAL				0.0		0.0		2.05
2-2	5/ 2/78	0-1	70.5	9.0	0.0	0.0	0.0	0.0	0.91	0.14
2-2	5/ 2/78	1-7.5	256.6	17.9	0.0	0.0	0.0	0.0	1.03	0.38
2-2	5/ 2/78	7.5-15			0.0	0.0	0.0	0.0	0.84	0.88
2-2	5/ 2/78	15-30			0.0	0.0	0.0	0.0	0.0	0.0
		TOTAL				0.0		0.0		1.60
2-3	5/ 2/78	0-1	78.2	9.9	0.0	0.0	0.0	0.0	2.02	0.35
2-3	5/ 2/78	1-7.5	235.0	20.0	0.0	0.0	0.0	0.0	1.85	0.95
2-3	5/ 2/78	7.5-15			0.0	0.0	0.0	0.0	0.91	0.96
2-3	5/ 2/78	15-30			0.0	0.0	0.0	0.0	0.0	0.0
		TOTAL				0.0		0.0		2.26
		MEAN				0.0		0.0		1.97
		STANDARD DEVIATION				0.0		0.0		0.33
2-1	5/ 8/78	0-1	61.5	32.7	6.32	0.85	11.80	1.59	5.10	0.69
2-1	5/ 8/78	1-7.5	265.7	33.7	0.0	0.0	0.0	0.0	1.72	1.00
2-1	5/ 8/78	7.5-15			0.0	0.0	0.0	0.0	0.43	0.45
2-1	5/ 8/78	15-30			0.0	0.0	0.0	0.0	0.0	0.0
		TOTAL				0.85		1.59		2.14
2-2	5/ 8/78	0-1	79.4	30.5	6.22	1.08	9.47	1.65	9.30	1.62
2-2	5/ 8/78	1-7.5	252.3	29.9	0.0	0.0	0.0	0.0	1.30	0.72
2-2	5/ 8/78	7.5-15			0.0	0.0	0.0	0.0	0.45	0.47
2-2	5/ 8/78	15-30			0.0	0.0	0.0	0.0	0.25	0.53
		TOTAL				1.08		1.65		3.34
2-3	5/ 8/78	0-1	62.5	29.8	8.18	1.12	14.92	2.04	16.64	2.28
2-3	5/ 8/78	1-7.5	263.8	31.0	1.07	0.62	0.0	0.0	1.24	0.72
2-3	5/ 8/78	7.5-15			0.0	0.0	0.0	0.0	2.80	2.94
2-3	5/ 8/78	15-30			0.0	0.0	0.0	0.0	0.36	0.76
		TOTAL				1.74		2.04		6.69
		MEAN				1.22		1.76		4.06
		STANDARD DEVIATION				0.46		0.25		2.36

SITE	DATE	DEPTH CM	SAMPLE WT. GM	H2O %	PROPACHLOR PPM	PROPACHLOR KG/HA	CYANAZINE PPM	CYANAZINE KG/HA	PARAQUAT PPM	PARAQUAT KG/HA
2-1	5/19/78	0-1	58.8	10.3	4.40	0.57	9.10	1.17	15.00	1.93
2-1	5/19/78	1-7.5	220.7	25.2	0.0	0.0	0.72	0.35	2.30	1.11
2-1	5/19/78	7.5-15			0.0	0.0	0.0	0.0	0.65	0.68
2-1	5/19/78	15-30			0.0	0.0	0.0	0.0	0.0	0.0
		TOTAL				0.57		1.52		3.73
2-2	5/19/78	0-1	64.1	9.3	6.76	0.95	5.26	0.74	17.70	2.49
2-2	5/19/78	1-7.5	250.5	24.3	0.0	0.0	0.0	0.0	1.50	0.82
2-2	5/19/78	7.5-15			0.0	0.0	0.0	0.0	0.77	0.81
2-2	5/19/78	15-30			0.0	0.0	0.0	0.0	0.0	0.0
		TOTAL				0.95		0.74		4.12
2-3	5/19/78	0-1	58.9	11.8	2.96	0.38	9.80	1.14	18.20	2.35
2-3	5/19/78	1-7.5	231.3	24.6	0.0	0.0	0.0	0.0	1.30	0.66
2-3	5/19/78	7.5-15			0.0	0.0	0.0	0.0	0.65	0.68
2-3	5/19/78	15-30			0.0	0.0	0.0	0.0	0.0	0.0
		TOTAL				0.38		1.14		3.69
		MEAN				0.63		1.13		3.85
		STANDARD DEVIATION				0.29		0.39		0.24
2-1	5/24/78	0-1	58.8	13.7	1.24	0.16	5.35	0.69	13.70	1.77
2-1	5/24/78	1-7.5	262.2	26.3	0.0	0.0	0.24	0.14	1.93	1.11
2-1	5/24/78	7.5-15			0.0	0.0	0.0	0.0	0.73	0.77
2-1	5/24/78	15-30			0.0	0.0	0.0	0.0	0.0	0.0
		TOTAL				0.16		0.83		3.64
2-2	5/24/78	0-1	65.3	8.3	1.90	0.27	7.77	1.11	16.70	2.39
2-2	5/24/78	1-7.5	270.2	23.1	0.0	0.0	0.46	0.27	2.37	1.40
2-2	5/24/78	7.5-15			0.0	0.0	0.0	0.0	0.40	0.42
2-2	5/24/78	15-30			0.0	0.0	0.0	0.0	0.0	0.0
		TOTAL				0.27		1.38		4.22
2-3	5/24/78	0-1	58.9	10.1	1.86	0.24	6.69	0.86	16.50	2.13
2-3	5/24/78	1-7.5	229.5	23.6	0.0	0.0	1.05	0.53	2.44	1.23
2-3	5/24/78	7.5-15			0.0	0.0	0.0	0.0	1.01	1.06
2-3	5/24/78	15-30			0.0	0.0	0.0	0.0	0.0	0.0
		TOTAL				0.24		1.39		4.42
		MEAN				0.22		1.20		4.09
		STANDARD DEVIATION				0.06		0.32		0.48

TABLE 32- 6. CONTINUED

SITE	DATE	DEPTH CM	SAMPLE WT. GM	H2O %	PROPACHLOR PPM	PROPACHLOR KG/HA	CYANAZINE PPM	CYANAZINE KG/HA	PARAQUAT PPM	PARAQUAT KG/HA
2-1	5/28/78	0-1	68.3	32.7	0.0	0.0	4.33	0.65	10.81	1.62
2-1	5/28/78	1-7.5	257.3	32.3	0.0	0.0	0.73	0.41	3.25	1.83
2-1	5/28/78	7.5-15			0.0	0.0	0.0	0.0	0.74	0.78
2-1	5/28/78	15-30			0.0	0.0	0.0	0.0	0.0	0.0
		TOTAL				0.0		1.06		4.23
2-2	5/28/78	0-1	65.5	31.0	0.0	0.0	4.21	0.60	12.36	1.78
2-2	5/28/78	1-7.5	277.5	29.3	0.0	0.0	0.60	0.37	2.60	1.58
2-2	5/28/78	7.5-15			0.0	0.0	0.0	0.0	0.71	0.75
2-2	5/28/78	15-30			0.0	0.0	0.0	0.0	0.0	0.0
		TOTAL				0.0		0.97		4.10
2-3	5/28/78	0-1	65.0	30.5	0.0	0.0	2.98	0.42	9.90	1.41
2-3	5/28/78	1-7.5	252.2	29.8	0.0	0.0	1.15	0.64	3.93	2.17
2-3	5/28/78	7.5-15			0.0	0.0	0.0	0.0	0.57	0.60
2-3	5/28/78	15-30			0.0	0.0	0.0	0.0	0.0	0.0
		TOTAL				0.0		1.06		4.18
		MEAN				0.0		1.03		4.17
		STANDARD DEVIATION				0.0		0.05		0.06
2-1	6/ 1/78	0-1	63.8	25.0	0.0	0.0	4.36	0.61	8.78	1.23
2-1	6/ 1/78	1-7.5	232.0	28.2	0.0	0.0	1.05	0.53	3.97	2.02
2-1	6/ 1/78	7.5-15			0.0	0.0	0.0	0.0	0.99	1.04
2-1	6/ 1/78	15-30			0.0	0.0	0.0	0.0	0.39	0.82
		TOTAL				0.0		1.14		5.11
2-2	6/ 1/78	0-1	60.2	21.7	0.0	0.0	3.78	0.50	9.66	1.27
2-2	6/ 1/78	1-7.5	240.3	27.1	0.0	0.0	0.84	0.44	3.47	1.83
2-2	6/ 1/78	7.5-15			0.0	0.0	0.0	0.0	0.69	0.72
2-2	6/ 1/78	15-30			0.0	0.0	0.0	0.0	0.0	0.0
		TOTAL				0.0		0.94		3.83
2-3	6/ 1/78	0-1	73.9	20.9	0.0	0.0	3.09	0.50	9.76	1.58
2-3	6/ 1/78	1-7.5	223.4	25.3	0.0	0.0	0.75	0.37	1.68	0.82
2-3	6/ 1/78	7.5-15			0.0	0.0	0.0	0.0	0.77	0.81
2-3	6/ 1/78	15-30			0.0	0.0	0.0	0.0	0.0	0.0
		TOTAL				0.0		0.87		3.21
		MEAN				0.0		0.98		4.05
		STANDARD DEVIATION				0.0		0.14		0.96

SITE	DATE	DEPTH CM	SAMPLE WT. GM	H2O %	PROPACHLOR PPM	PROPACHLOR KG/HA	CYANAZINE PPM	CYANAZINE KG/HA	PARAQUAT PPM	PARAQUAT KG/HA
2-1	6/12/78	0-1	69.3	6.4	0.40	0.06	4.11	0.62	8.04	1.22
2-1	6/12/78	1-7.5	316.8	22.2	0.09	0.06	0.59	0.41	4.20	2.92
2-1	6/12/78	7.5-15			0.0	0.0	0.86	0.90	1.33	1.40
2-1	6/12/78	15-30			0.0	0.0	0.0	0.0	0.47	0.99
		TOTAL				0.12		1.94		6.52
2-2	6/12/78	0-1	78.6	4.8	0.11	0.02	2.24	0.39	13.64	2.35
2-2	6/12/78	1-7.5	326.8	21.3	0.0	0.0	0.49	0.35	3.53	2.53
2-2	6/12/78	7.5-15			0.0	0.0	0.0	0.0	0.74	0.78
2-2	6/12/78	15-30			0.0	0.0	0.0	0.0	0.28	0.59
		TOTAL				0.02		0.74		6.25
2-3	6/12/78	0-1	72.3	6.0	0.0	0.0	1.19	0.19	9.80	1.55
2-3	6/12/78	1-7.5	322.8	20.4	0.0	0.0	0.43	0.30	2.63	1.86
2-3	6/12/78	7.5-15			0.0	0.0	0.0	0.0	1.23	1.29
2-3	6/12/78	15-30			0.0	0.0	0.0	0.0	1.13	2.37
		TOTAL				0.0		0.49		7.08
		MEAN				0.05		1.06		6.62
		STANDARD DEVIATION				0.07		0.77		0.42
2-1	6/16/78	0-1	76.8	22.3	0.0	0.0	1.79	0.30	8.98	1.51
2-1	6/16/78	1-7.5	225.7	26.1	0.0	0.0	0.28	0.14	2.26	1.12
2-1	6/16/78	7.5-15			0.0	0.0	0.0	0.0	0.54	0.57
2-1	6/16/78	15-30			0.0	0.0	0.0	0.0	0.0	0.0
		TOTAL				0.0		0.44		3.20
2-2	6/16/78	0-1	59.4	18.0	0.09	0.01	0.69	0.09	9.22	1.20
2-2	6/16/78	1-7.5	220.1	24.3	0.0	0.0	0.39	0.19	3.55	1.71
2-2	6/16/78	7.5-15			0.0	0.0	0.0	0.0	0.82	0.86
2-2	6/16/78	15-30			0.0	0.0	0.0	0.0	0.0	0.0
		TOTAL				0.01		0.28		3.78
2-3	6/16/78	0-1	75.5	16.8	0.23	0.04	1.33	0.22	9.82	1.63
2-3	6/16/78	1-7.5	258.9	22.0	0.0	0.0	0.60	0.34	2.20	1.25
2-3	6/16/78	7.5-15			0.0	0.0	0.0	0.0	0.86	0.90
2-3	6/16/78	15-30			0.0	0.0	0.0	0.0	0.0	0.0
		TOTAL				0.04		0.56		3.78
		MEAN				0.02		0.43		3.58
		STANDARD DEVIATION				0.02		0.14		0.33

TABLE 32- 6. CONCLUDED

SITE	DATE	DEPTH CM	SAMPLE WT. GM	H2O %	PROPACHLOR PPM	PROPACHLOR KG/HA	CYANAZINE PPM	CYANAZINE KG/HA	PARAQUAT PPM	PARAQUAT KG/HA
2-1	6/21/78	0-1	70.6	26.7	0.0	0.0	2.10	0.32	10.34	1.60
2-1	6/21/78	1-7.5	184.9	29.0	0.0	0.0	0.88	0.36	3.61	1.46
2-1	6/21/78	7.5-15			0.0	0.0	0.07	0.07	0.96	1.01
2-1	6/21/78	15-30			0.0	0.0	0.02	0.04	0.97	2.04
		TOTAL				0.0		0.80		6.11
2-2	6/21/78	0-1	58.7	20.2	0.0	0.0	1.13	0.15	7.17	0.92
2-2	6/21/78	1-7.5	192.4	25.0	0.0	0.0	0.33	0.14	3.37	1.42
2-2	6/21/78	7.5-15			0.0	0.0	0.0	0.0	1.16	1.22
2-2	6/21/78	15-30			0.0	0.0	0.0	0.0	0.0	0.0
		TOTAL				0.0		0.28		3.56
2-3	6/21/78	0-1	63.4	17.8	0.0	0.0	1.70	0.24	10.35	1.44
2-3	6/21/78	1-7.5	191.8	23.2	0.0	0.0	0.52	0.22	3.14	1.32
2-3	6/21/78	7.5-15			0.0	0.0	0.0	0.0	0.81	0.85
2-3	6/21/78	15-30			0.0	0.0	0.0	0.0	0.49	1.03
		TOTAL				0.0		0.45		4.64
		MEAN				0.0		0.51		4.77
		STANDARD DEVIATION				0.0		0.26		1.28
2-1	8/ 1/78	0-1	77.1	23.8	0.0	0.0	0.62	0.10	4.28	0.72
2-1	8/ 1/78	1-7.5	247.8	26.2	0.0	0.0	0.0	0.0	1.51	0.82
2-1	8/ 1/78	7.5-15			0.0	0.0	0.0	0.0	1.17	1.23
2-1	8/ 1/78	15-30			0.0	0.0	0.0	0.0	0.41	0.86
		TOTAL				0.0		0.10		3.63
2-2	8/ 1/78	0-1	70.8	18.2	0.0	0.0	0.0	0.0	8.97	1.39
2-2	8/ 1/78	1-7.5	233.0	23.0	0.0	0.0	0.0	0.0	1.97	1.01
2-2	8/ 1/78	7.5-15			0.0	0.0	0.0	0.0	0.80	0.84
2-2	8/ 1/78	15-30			0.0	0.0	0.0	0.0	0.0	0.0
		TOTAL				0.0		0.0		3.24
2-3	8/ 1/78	0-1	77.1	17.9	0.0	0.0	0.0	0.0	5.32	0.90
2-3	8/ 1/78	1-7.5	206.4	21.5	0.0	0.0	0.0	0.0	2.06	0.93
2-3	8/ 1/78	7.5-15			0.0	0.0	0.0	0.0	0.83	0.87
2-3	8/ 1/78	15-30			0.0	0.0	0.0	0.0	0.0	0.0
		TOTAL				0.0		0.0		2.70
		MEAN				0.0		0.03		3.19
		STANDARD DEVIATION				0.0		0.06		0.47

TABLE 63- 1. FOUR MILE CREEK WATERSHED HERBICIDE CONCENTRATIONS IN RUNOFF WATER AND SEDIMENT FOR 1976 SITE 1

SITE	DATE	HOUR	MIN	ALACHLOR	METRIBUZIN	PROPACHLOR	CYANAZINE	ATRAZINE	ALACHLOR	METRIBUZIN	PROPACHLOR	CYANAZINE	ATRAZINE	PARAQUAT
				PPB IN WATER					PPB IN SEDIMENT					
1	76/ 5/29	7	25	160.0	50.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3280.0
1	76/ 5/29	7	26	200.0	70.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6940.0
1	76/ 5/29	7	28	280.0	130.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3030.0
1	76/ 5/29	7	30	150.0	70.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	7160.0
1	76/ 6/13	18	42	77.2	26.5	0.0	0.0	0.0	110.0	0.0	0.0	0.0	0.0	3550.0
1	76/ 6/13	18	47	61.4	33.4	0.0	0.0	0.0	50.0	0.0	0.0	0.0	0.0	4630.0
1	76/ 6/13	18	54	130.2	38.7	0.0	0.0	0.0	210.0	0.0	0.0	0.0	0.0	6570.0
1	76/ 6/13	18	55	94.6	32.2	0.0	0.0	0.0	110.0	0.0	0.0	0.0	0.0	5080.0
1	76/ 6/13	18	56	136.7	77.8	0.0	0.0	0.0	250.0	0.0	0.0	0.0	0.0	11000.0
1	76/ 6/13	18	57	147.0	60.0	0.0	0.0	0.0	220.0	0.0	0.0	0.0	0.0	10390.0
1	76/ 6/13	18	58	123.0	71.3	0.0	0.0	0.0	130.0	0.0	0.0	0.0	0.0	7300.0
1	76/ 6/13	18	59	127.0	57.0	0.0	0.0	0.0	130.0	0.0	0.0	0.0	0.0	9200.0
1	76/ 6/13	19	1	132.0	47.0	0.0	0.0	0.0	220.0	0.0	0.0	0.0	0.0	7900.0
1	76/ 6/13	19	3	125.0	40.0	0.0	0.0	0.0	140.0	0.0	0.0	0.0	0.0	9070.0
1	76/ 6/13	19	5	124.0	34.0	0.0	0.0	0.0	100.0	0.0	0.0	0.0	0.0	10430.0
1	76/ 6/13	19	7	80.7	34.5	0.0	0.0	0.0	180.0	0.0	0.0	0.0	0.0	8270.0
1	76/ 6/13	19	9	118.2	27.9	0.0	0.0	0.0	270.0	0.0	0.0	0.0	0.0	11060.0
1	76/ 6/13	19	11	78.0	30.5	0.0	0.0	0.0	160.0	0.0	0.0	0.0	0.0	9740.0
1	76/ 6/13	19	13	78.1	28.6	0.0	0.0	0.0	180.0	0.0	0.0	0.0	0.0	11300.0
1	76/ 6/13	19	15	83.7	25.2	0.0	0.0	0.0	220.0	0.0	0.0	0.0	0.0	10920.0
1	76/ 6/13	19	17	72.6	31.9	0.0	0.0	0.0	170.0	0.0	0.0	0.0	0.0	11470.0
1	76/ 6/13	19	18	31.7	3.1	0.0	0.0	0.0	150.0	0.0	0.0	0.0	0.0	5190.0
1	76/ 6/13	19	19	82.7	28.7	0.0	0.0	0.0	420.0	0.0	0.0	0.0	0.0	14240.0
1	76/ 6/13	19	30	54.9	11.8	0.0	0.0	0.0	50.0	0.0	0.0	0.0	0.0	5790.0
1	76/ 6/13	19	36	56.6	14.0	0.0	0.0	0.0	200.0	0.0	0.0	0.0	0.0	12730.0
1	76/ 6/13	19	38	50.6	11.7	0.0	0.0	0.0	180.0	0.0	0.0	0.0	0.0	10990.0
1	76/ 6/13	19	40	54.0	12.5	0.0	0.0	0.0	110.0	0.0	0.0	0.0	0.0	11990.0
1	76/ 6/13	19	42	64.4	15.1	0.0	0.0	0.0	200.0	0.0	0.0	0.0	0.0	12740.0
1	76/ 6/13	19	44	55.6	6.1	0.0	0.0	0.0	200.0	0.0	0.0	0.0	0.0	10980.0
1	76/ 6/13	19	46	60.4	10.0	0.0	0.0	0.0	220.0	0.0	0.0	0.0	0.0	18000.0
1	76/ 6/13	19	48	63.8	0.0	0.0	0.0	0.0	200.0	0.0	0.0	0.0	0.0	11240.0
1	76/ 6/13	19	50	55.0	0.0	0.0	0.0	0.0	300.0	0.0	0.0	0.0	0.0	12000.0
1	76/ 6/13	19	52	58.8	9.3	0.0	0.0	0.0	270.0	0.0	0.0	0.0	0.0	11490.0
1	76/ 6/13	19	54	63.0	10.1	0.0	0.0	0.0	280.0	0.0	0.0	0.0	0.0	11000.0
1	76/ 6/13	19	56	48.8	8.1	0.0	0.0	0.0	300.0	0.0	0.0	0.0	0.0	10750.0
1	76/ 6/13	20	27	37.8	11.4	0.0	0.0	0.0	190.0	0.0	0.0	0.0	0.0	7250.0
1	76/ 6/13	20	29	41.8	12.4	0.0	0.0	0.0	190.0	0.0	0.0	0.0	0.0	9240.0
1	76/ 6/13	20	31	45.6	0.0	0.0	0.0	0.0	250.0	0.0	0.0	0.0	0.0	8740.0
1	76/ 6/13	20	33	37.0	7.8	0.0	0.0	0.0	300.0	0.0	0.0	0.0	0.0	9000.0
1	76/ 6/13	20	35	32.0	6.2	0.0	0.0	0.0	230.0	0.0	0.0	0.0	0.0	8980.0
1	76/ 6/13	20	37	35.8	4.4	0.0	0.0	0.0	230.0	0.0	0.0	0.0	0.0	10240.0
1	76/ 6/13	20	39	36.8	6.6	0.0	0.0	0.0	190.0	0.0	0.0	0.0	0.0	9240.0
1	76/ 6/13	20	41	36.8	5.0	0.0	0.0	0.0	350.0	0.0	0.0	0.0	0.0	10740.0
1	76/ 6/13	20	43	36.2	4.5	0.0	0.0	0.0	300.0	0.0	0.0	0.0	0.0	10740.0
1	76/ 6/13	20	45	35.2	9.7	0.0	0.0	0.0	240.0	0.0	0.0	0.0	0.0	11610.0
1	76/ 6/13	20	47	34.0	5.2	0.0	0.0	0.0	280.0	0.0	0.0	0.0	0.0	11190.0
1	76/ 6/13	20	49	29.4	9.2	0.0	0.0	0.0	280.0	0.0	0.0	0.0	0.0	11700.0
1	76/ 6/13	20	51	28.0	4.8	0.0	0.0	0.0	300.0	0.0	0.0	0.0	0.0	12090.0
1	76/ 6/13	20	53	33.0	2.2	0.0	0.0	0.0	270.0	0.0	0.0	0.0	0.0	12670.0
1	76/ 6/13	20	55	25.9	0.0	0.0	0.0	0.0	240.0	0.0	0.0	0.0	0.0	12000.0
1	76/ 6/13	20	57	29.4	4.4	0.0	0.0	0.0	230.0	0.0	0.0	0.0	0.0	11450.0
1	76/ 6/13	20	59	24.7	3.3	0.0	0.0	0.0	330.0	0.0	0.0	0.0	0.0	7090.0
1	76/ 6/13	21	1	43.0	4.9	0.0	0.0	0.0	230.0	0.0	0.0	0.0	0.0	8670.0

TABLE G3- 1. CONCLUDED

SITE	DATE	HOUR	MIN	ALACHLOR	METRIBUZIN	PROPACHLOR	CYANAZINE	ATRAZINE	ALACHLOR	METRIBUZIN	PROPACHLOR	CYANAZINE	ATRAZINE	PARAQUAT
				PPB IN WATER					PPB IN SEDIMENT					
1	76/ 6/13	21	3	39.3	4.3	0.0	0.0	0.0	300.0	0.0	0.0	0.0	0.0	11280.0
1	76/ 6/13	21	5	21.5	5.3	0.0	0.0	0.0	270.0	0.0	0.0	0.0	0.0	12250.0
1	76/ 6/13	21	7	43.0	16.8	0.0	0.0	0.0	110.0	0.0	0.0	0.0	0.0	3870.0
1	76/ 6/13	21	9	27.6	3.2	0.0	0.0	0.0	310.0	0.0	0.0	0.0	0.0	12800.0
1	76/ 6/13	21	17	26.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6840.0
1	76/ 6/13	21	27	30.5	3.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	8150.0
1	76/ 6/13	21	40	31.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	9710.0

TABLE G3- 2. FOUR MILE CREEK WATERSHED HERBICIDE CONCENTRATIONS IN RUNOFF WATER AND SEDIMENT FOR 1976 SITE 2

SITE	DATE	HOUR	MIN	ALACHLOR	METRIBUZIN	PROPACHLOR	CYANAZINE	ATRAZINE	ALACHLOR	METRIBUZIN	PROPACHLOR	CYANAZINE	ATRAZINE	PARAQUAT
				PPB IN WATER					PPB IN SEDIMENT					
2	76/ 5/29	7	27	0.0	0.0	60.0	190.0	0.0	0.0	0.0	230.0	1110.0	0.0	22020.0
2	76/ 5/29	7	29	0.0	0.0	50.0	190.0	0.0	0.0	0.0	260.0	1310.0	0.0	18330.0
2	76/ 5/29	7	30	0.0	0.0	40.0	160.0	0.0	0.0	0.0	160.0	730.0	0.0	14000.0
2	76/ 5/29	7	31	0.0	0.0	40.0	150.0	0.0	0.0	0.0	90.0	570.0	0.0	19410.0
2	76/ 5/29	7	32	0.0	0.0	40.0	150.0	0.0	0.0	0.0	80.0	480.0	0.0	17170.0
2	76/ 6/13	19	34	0.0	0.0	2.7	132.8	0.0	0.0	0.0	0.0	310.0	0.0	4710.0
2	76/ 6/13	19	40	0.0	0.0	1.6	94.6	0.0	0.0	0.0	0.0	490.0	0.0	4890.0
2	76/ 6/13	19	45	0.0	0.0	4.1	82.2	0.0	0.0	0.0	0.0	430.0	0.0	5000.0
2	76/ 6/13	19	55	0.0	0.0	3.3	44.5	0.0	0.0	0.0	0.0	510.0	0.0	5340.0
2	76/ 6/13	20	5	0.0	0.0	2.3	42.4	0.0	0.0	0.0	0.0	670.0	0.0	5360.0
2	76/ 6/13	20	15	0.0	0.0	2.3	53.7	0.0	0.0	0.0	0.0	630.0	0.0	6440.0
2	76/ 6/13	20	25	0.0	0.0	3.3	72.6	0.0	0.0	0.0	0.0	660.0	0.0	6240.0
2	76/ 6/13	20	34	0.0	0.0	0.0	45.0	0.0	0.0	0.0	0.0	290.0	0.0	3800.0
2	76/ 6/13	20	35	0.0	0.0	0.0	40.0	0.0	0.0	0.0	0.0	210.0	0.0	3800.0
2	76/ 6/13	20	45	0.0	0.0	0.0	31.0	0.0	0.0	0.0	0.0	400.0	0.0	3990.0
2	76/ 6/13	20	55	0.0	0.0	1.3	28.5	0.0	0.0	0.0	0.0	310.0	0.0	4900.0
2	76/ 6/13	21	5	0.0	0.0	0.0	26.3	0.0	0.0	0.0	0.0	290.0	0.0	4590.0
2	76/ 6/13	21	15	0.0	0.0	0.0	26.3	0.0	0.0	0.0	0.0	550.0	0.0	4840.0
2	76/ 6/13	21	20	0.0	0.0	0.0	32.8	0.0	0.0	0.0	0.0	0.0	0.0	4960.0
2	76/ 6/13	21	35	0.0	0.0	0.0	30.0	0.0	0.0	0.0	0.0	0.0	0.0	5500.0
2	76/ 6/13	21	45	0.0	0.0	0.0	26.2	0.0	0.0	0.0	0.0	0.0	0.0	5700.0

TABLE G3- 3. FOUR MILE CREEK WATERSHED HERBICIDE CONCENTRATIONS IN RUNOFF WATER AND SEDIMENT FOR 1976 SITE 4

SITE	DATE	HOUR	MIN	ALACHLOR	METRIBUZIN	PROPACHLOR	CYANAZINE	ATRAZINE	ALACHLOR	METRIBUZIN	PROPACHLOR	CYANAZINE	ATRAZINE	PARAQUAT
				PPB IN WATER					PPB IN SEDIMENT					
4	76/ 5/ 2	11	8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
4	76/ 5/ 2	17	55	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
4	76/ 5/ 3	18	14	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
4	76/ 5/ 6	18	19	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
4	76/ 5/ 8	17	58	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
4	76/ 5/10	17	49	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
4	76/ 5/11	18	9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
4	76/ 5/15	17	56	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
4	76/ 5/16	17	50	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
4	76/ 5/17	18	15	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
4	76/ 5/18	18	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
4	76/ 5/19	18	20	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0
4	76/ 5/20	17	51	0.0	0.0	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0
4	76/ 5/21	18	20	0.0	0.0	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0
4	76/ 5/24	18	10	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0
4	76/ 5/25	18	18	0.0	0.0	0.6	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0
4	76/ 5/26	18	10	0.0	0.0	0.2	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0
4	76/ 5/27	18	20	0.0	0.0	0.4	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0
4	76/ 5/28	17	55	0.0	0.0	0.4	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0
4	76/ 5/29	8	40	0.5	0.0	0.4	0.0	0.5	0.0	0.0	0.0	0.0	0.0	0.0
4	76/ 5/29	9	40	0.5	0.0	0.6	0.2	2.0	0.0	0.0	0.0	0.0	0.0	0.0
4	76/ 5/29	12	30	13.8	0.0	10.2	5.8	60.0	20.0	0.0	0.0	100.0	600.0	890.0
4	76/ 5/29	15	30	96.0	6.7	8.6	0.0	70.0	640.0	0.0	0.0	0.0	450.0	0.0
4	76/ 5/29	19	20	45.8	1.4	3.8	0.0	48.0	0.0	0.0	0.0	0.0	0.0	0.0
4	76/ 5/30	7	11	5.0	0.0	1.0	0.0	4.3	0.0	0.0	0.0	0.0	0.0	0.0
4	76/ 5/30	17	47	0.3	0.0	0.0	0.0	3.2	0.0	0.0	0.0	0.0	0.0	0.0
4	76/ 5/31	17	45	0.1	0.0	0.0	0.0	1.4	0.0	0.0	0.0	0.0	0.0	0.0
4	76/ 6/ 1	18	13	0.1	0.0	0.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0
4	76/ 6/ 2	18	5	0.0	0.0	0.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0
4	76/ 6/ 3	17	52	0.0	0.0	0.0	0.0	0.7	0.0	0.0	0.0	0.0	0.0	0.0
4	76/ 6/ 4	17	50	0.0	0.0	0.0	0.5	0.6	0.0	0.0	0.0	0.0	0.0	0.0
4	76/ 6/ 5	17	50	0.0	0.0	0.0	0.0	0.5	0.0	0.0	0.0	0.0	0.0	0.0
4	76/ 6/ 6	18	24	0.0	0.0	0.0	0.0	0.4	0.0	0.0	0.0	0.0	0.0	0.0
4	76/ 6/ 7	17	51	0.0	0.0	0.0	0.0	0.4	0.0	0.0	0.0	0.0	0.0	0.0
4	76/ 6/ 8	17	45	0.0	0.0	0.0	0.0	0.9	0.0	0.0	0.0	0.0	0.0	0.0
4	76/ 6/ 9	17	44	0.0	0.0	0.0	0.0	0.5	0.0	0.0	0.0	0.0	0.0	0.0
4	76/ 6/10	7	29	0.4	0.0	0.0	0.0	0.9	0.0	0.0	0.0	0.0	0.0	0.0
4	76/ 6/10	18	19	0.0	0.0	0.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0
4	76/ 6/11	17	48	0.0	0.0	0.0	0.0	0.6	0.0	0.0	0.0	0.0	0.0	0.0
4	76/ 6/12	18	0	0.0	0.0	0.0	0.0	0.5	0.0	0.0	0.0	0.0	0.0	0.0
4	76/ 6/13	17	40	0.0	0.0	0.0	0.0	0.7	0.0	0.0	0.0	0.0	0.0	0.0
4	76/ 6/13	21	25	22.1	0.0	0.0	5.3	38.5	110.0	0.0	0.0	80.0	210.0	0.0
4	76/ 6/14	0	17	0.0	0.0	0.0	0.0	20.7	100.0	0.0	0.0	50.0	240.0	0.0
4	76/ 6/14	2	15	9.2	0.0	0.0	2.3	14.7	70.0	0.0	0.0	20.0	110.0	0.0
4	76/ 6/14	7	30	11.4	0.3	0.0	0.4	6.4	900.0	0.0	0.0	200.0	110.0	0.0
4	76/ 6/14	11	30	22.7	0.5	0.0	0.7	11.2	0.0	0.0	0.0	0.0	80.0	0.0
4	76/ 6/14	17	30	3.5	0.1	0.0	0.3	4.4	0.0	0.0	0.0	0.0	0.0	0.0
4	76/ 6/15	9	23	0.7	0.0	0.0	0.0	1.2	0.0	0.0	0.0	0.0	0.0	0.0
4	76/ 6/15	18	10	0.0	0.0	0.0	0.0	0.9	0.0	0.0	0.0	0.0	0.0	0.0
4	76/ 6/16	18	20	0.0	0.0	0.0	0.0	0.6	0.0	0.0	0.0	0.0	0.0	0.0
4	76/ 6/17	17	56	0.0	0.0	0.0	0.0	0.6	0.0	0.0	0.0	0.0	0.0	0.0
4	76/ 6/18	17	49	0.0	0.0	0.0	0.0	0.5	0.0	0.0	0.0	0.0	0.0	0.0
4	76/ 6/19	18	13	0.0	0.0	0.0	0.0	0.5	0.0	0.0	0.0	0.0	0.0	0.0

TABLE G3- 3. CONTINUED

SITE	DATE	HOUR	MIN	ALACHLOR	METRIBUZIN	PROPACHLOR	CYANAZINE	ATRAZINE	ALACHLOR	METRIBUZIN	PROPACHLOR	CYANAZINE	ATRAZINE	PARAQUAT
				PPB IN WATER					PPB IN SEDIMENT					
4	76/ 6/20	17	59	0.0	0.0	0.0	0.0	0.4	0.0	0.0	0.0	0.0	0.0	0.0
4	76/ 6/21	18	10	0.0	0.0	0.0	0.0	0.4	0.0	0.0	0.0	0.0	0.0	0.0
4	76/ 6/22	17	50	0.0	0.0	0.0	0.0	0.6	0.0	0.0	0.0	0.0	0.0	0.0
4	76/ 6/23	18	25	0.0	0.0	0.0	0.0	0.4	0.0	0.0	0.0	0.0	0.0	0.0
4	76/ 6/24	18	0	0.0	0.0	0.0	0.0	0.7	0.0	0.0	0.0	0.0	0.0	0.0
4	76/ 6/25	17	48	0.0	0.0	0.0	0.0	0.5	0.0	0.0	0.0	0.0	0.0	0.0
4	76/ 6/26	17	51	0.0	0.0	0.0	0.0	0.4	0.0	0.0	0.0	0.0	0.0	0.0
4	76/ 6/27	18	8	0.0	0.0	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0
4	76/ 6/28	17	40	0.0	0.0	0.0	0.0	0.4	0.0	0.0	0.0	0.0	0.0	0.0
4	76/ 6/29	17	20	0.0	0.0	0.0	0.0	0.4	0.0	0.0	0.0	0.0	0.0	0.0
4	76/ 6/30	18	10	0.0	0.0	0.0	0.0	0.4	0.0	0.0	0.0	0.0	0.0	0.0
4	76/ 7/ 1	18	26	0.0	0.0	0.0	0.0	0.4	0.0	0.0	0.0	0.0	0.0	0.0
4	76/ 7/ 2	18	0	0.0	0.0	0.0	0.0	0.4	0.0	0.0	0.0	0.0	0.0	0.0
4	76/ 7/ 3	17	40	0.0	0.0	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0
4	76/ 7/ 4	18	21	0.0	0.0	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0
4	76/ 7/ 5	17	40	0.0	0.0	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0
4	76/ 7/ 6	18	20	0.0	0.0	0.0	0.0	0.4	0.0	0.0	0.0	0.0	0.0	0.0
4	76/ 7/ 7	18	12	0.0	0.0	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0
4	76/ 7/ 8	18	10	0.0	0.0	0.0	0.0	0.4	0.0	0.0	0.0	0.0	0.0	0.0
4	76/ 7/ 9	18	18	0.0	0.0	0.0	0.0	0.4	0.0	0.0	0.0	0.0	0.0	0.0
4	76/ 7/10	18	21	0.0	0.0	0.0	0.0	0.4	0.0	0.0	0.0	0.0	0.0	0.0
4	76/ 7/11	18	9	0.0	0.0	0.0	0.0	0.4	0.0	0.0	0.0	0.0	0.0	0.0
4	76/ 7/12	18	7	0.0	0.0	0.0	0.0	0.4	0.0	0.0	0.0	0.0	0.0	0.0
4	76/ 7/13	18	0	0.0	0.0	0.0	0.0	0.4	0.0	0.0	0.0	0.0	0.0	0.0
4	76/ 7/14	18	3	0.0	0.0	0.0	0.0	0.4	0.0	0.0	0.0	0.0	0.0	0.0
4	76/ 7/15	18	13	0.0	0.0	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0
4	76/ 7/16	18	28	0.0	0.0	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0
4	76/ 7/17	18	30	0.0	0.0	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0
4	76/ 7/18	18	21	0.0	0.0	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0
4	76/ 7/19	18	1	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0
4	76/ 7/20	18	7	0.0	0.0	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0
4	76/ 7/21	18	21	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0
4	76/ 7/22	18	48	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0
4	76/ 7/23	18	20	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0
4	76/ 7/24	18	18	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0
4	76/ 7/25	18	8	0.0	0.0	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0
4	76/ 7/26	18	27	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0
4	76/ 7/27	18	29	1.4	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0
4	76/ 7/28	18	25	1.1	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0
4	76/ 7/29	18	30	0.0	0.0	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0
4	76/ 7/30	18	5	0.3	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0
4	76/ 7/31	18	11	0.0	0.0	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0
4	76/ 8/ 1	18	27	0.7	0.0	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0
4	76/ 8/ 2	18	20	0.2	0.0	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0
4	76/ 8/ 3	18	17	0.5	0.0	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0
4	76/ 8/ 4	18	29	0.4	0.0	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0
4	76/ 8/ 5	17	42	2.0	0.0	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0
4	76/ 8/ 6	18	3	2.3	0.0	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0
4	76/ 8/ 7	17	59	3.6	0.0	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0
4	76/ 8/ 8	18	25	8.4	0.0	0.0	0.0	0.5	0.0	0.0	0.0	0.0	0.0	0.0
4	76/ 8/ 9	18	31	0.0	0.0	0.0	0.0	0.4	0.0	0.0	0.0	0.0	0.0	0.0
4	76/ 8/10	18	0	0.0	0.0	0.0	0.0	0.4	0.0	0.0	0.0	0.0	0.0	0.0
4	76/ 8/11	17	58	0.0	0.0	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0

TABLE 63- 3. CONCLUDED

SITE	DATE	HOUR	MIN	ALACHLOR	METRIBUZIN	PROPACHLOR	CYANAZINE	ATRAZINE	ALACHLOR	METRIBUZIN	PROPACHLOR	CYANAZINE	ATRAZINE	PARAQUAT
				PPB IN WATER					PPB IN SEDIMENT					
4	76/ 8/13	18	7	0.0	0.0	0.0	0.0	0.4	0.0	0.0	0.0	0.0	0.0	0.0
4	76/ 8/14	18	11	0.0	0.0	0.0	0.0	0.4	0.0	0.0	0.0	0.0	0.0	0.0
4	76/ 8/15	18	16	0.0	0.0	0.0	0.0	0.4	0.0	0.0	0.0	0.0	0.0	0.0
4	76/ 8/16	18	31	0.0	0.0	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0
4	76/ 8/17	17	40	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0
4	76/ 8/18	18	12	0.0	0.0	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0
4	76/ 8/19	18	26	0.0	0.0	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0
4	76/ 8/20	17	45	0.0	0.0	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0
4	76/ 8/21	18	6	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0
4	76/ 8/22	18	13	0.0	0.0	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0
4	76/ 8/23	18	28	0.0	0.0	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0
4	76/ 8/24	17	34	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0
4	76/ 8/25	18	26	0.0	0.0	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0
4	76/ 8/26	18	25	0.0	0.0	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0
4	76/ 8/27	18	28	0.0	0.0	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0
4	76/ 8/28	18	10	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0
4	76/ 8/29	18	1	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0
4	76/ 8/30	18	3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
4	76/ 9/ 1	8	51	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
4	76/ 9/ 1	18	17	0.0	0.0	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0
4	76/ 9/ 2	18	29	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
4	76/ 9/ 3	18	17	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
4	76/ 9/ 4	17	57	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
4	76/ 9/ 5	18	17	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
4	76/ 9/ 6	18	13	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0
4	76/ 9/ 7	18	19	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0
4	76/ 9/ 9	18	12	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0
4	76/ 9/10	18	31	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
4	76/ 9/11	18	16	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
4	76/ 9/12	18	3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
4	76/ 9/13	18	24	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0
4	76/ 9/14	18	25	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0
4	76/ 9/15	18	12	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
4	76/ 9/16	18	21	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
4	76/ 9/17	18	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
4	76/ 9/18	18	23	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
4	76/ 9/19	18	20	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0

TABLE G3- 4. FOUR MILE CREEK WATERSHED HERBICIDE CONCENTRATIONS IN RUNOFF WATER AND SEDIMENT FOR 1977 SITE 1

SITE	DATE	HOUR	MIN	ALACHLOR	METRIBUZIN	PROPACHLOR	CYANAZINE	ATRAZINE	ALACHLOR	METRIBUZIN	PROPACHLOR	CYANAZINE	ATRAZINE	PARAQUAT
				PPB IN WATER					PPB IN SEDIMENT					
1	77/ 8/15	22	16	0.0	0.0	0.0	1.8	0.0	0.0	0.0	0.0	50.0	0.0	2460.0
1	77/ 8/15	22	19	0.0	0.0	0.0	0.5	0.0	0.0	0.0	0.0	4.3	0.0	4200.0
1	77/ 8/15	22	21	0.0	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0	3570.0
1	77/ 8/15	22	23	0.0	0.0	0.0	3.0	0.0	0.0	0.0	0.0	4.6	0.0	4100.0
1	77/ 8/15	22	25	0.0	0.0	0.0	1.8	0.0	0.0	0.0	0.0	14.0	0.0	4650.0
1	77/ 8/15	22	27	0.0	0.0	0.0	3.3	0.0	0.0	0.0	0.0	70.0	0.0	6800.0
1	77/ 8/15	22	29	0.0	0.0	0.0	3.1	0.0	0.0	0.0	0.0	76.1	0.0	6850.0
1	77/ 8/15	22	31	0.0	0.0	0.0	2.0	0.0	0.0	0.0	0.0	88.3	0.0	7850.0
1	77/ 8/15	22	33	0.0	0.0	0.0	4.9	0.0	0.0	0.0	0.0	98.4	0.0	7800.0
1	77/ 8/15	22	35	0.0	0.0	0.0	2.3	0.0	0.0	0.0	0.0	130.0	0.0	4590.0
1	77/ 8/15	22	37	0.0	0.0	0.0	2.4	0.0	0.0	0.0	0.0	58.2	0.0	8010.0
1	77/ 8/15	22	39	0.0	0.0	0.0	5.8	0.0	0.0	0.0	0.0	80.6	0.0	5970.0
1	77/ 8/15	22	41	0.0	0.0	0.0	2.7	0.0	0.0	0.0	0.0	118.9	0.0	10000.0
1	77/ 8/15	22	43	0.0	0.0	0.0	2.6	0.0	0.0	0.0	0.0	140.0	0.0	6560.0
1	77/ 8/15	22	45	0.0	0.0	0.0	2.6	0.0	0.0	0.0	0.0	111.5	0.0	4500.0
1	77/ 8/15	22	47	0.0	0.0	0.0	1.1	0.0	0.0	0.0	0.0	98.3	0.0	11520.0
1	77/ 8/28	0	41	0.0	0.0	2.4	1.3	0.0	0.0	0.0	0.0	60.0	0.0	5930.0
1	77/ 8/28	0	43	0.0	0.0	0.0	1.2	0.0	0.0	0.0	0.0	0.0	0.0	7010.0
1	77/ 8/28	0	46	0.0	0.0	0.0	1.6	0.0	0.0	0.0	0.0	0.0	0.0	7050.0
1	77/ 8/28	0	49	0.0	0.0	0.0	1.3	0.0	0.0	0.0	0.0	100.0	0.0	8040.0
1	77/ 8/28	0	54	0.0	0.0	0.0	1.5	0.0	0.0	0.0	0.0	0.0	0.0	11250.0
1	77/ 8/28	1	1	0.0	0.0	0.0	1.7	0.0	0.0	0.0	0.0	0.0	0.0	8280.0
1	77/ 8/28	1	9	0.0	0.0	0.0	2.0	0.0	0.0	0.0	0.0	70.0	0.0	13810.0
1	77/ 9/18	5	56	0.0	0.0	0.0	0.6	0.0	0.0	0.0	0.0	330.0	0.0	5000.0
1	77/ 9/18	6	8	0.0	0.0	0.0	0.6	0.0	0.0	0.0	0.0	0.0	0.0	5240.0

TABLE G3- 5. FOUR MILE CREEK WATERSHED HERBICIDE CONCENTRATIONS IN RUNOFF WATER AND SEDIMENT FOR 1977 SITE 2

SITE	DATE	HOUR	MIN	ALACHLOR	METRIBUZIN	PROPACHLOR	CYANAZINE	ATRAZINE	ALACHLOR	METRIBUZIN	PROPACHLOR	CYANAZINE	ATRAZINE	PARAQUAT
				PPB IN WATER					PPB IN SEDIMENT					
2	77/ 6/17	14	12	330.0	120.0	0.0	0.0	0.0	400.0	150.0	0.0	0.0	0.0	3960.0
2	77/ 8/15	22	21	0.2	0.0	0.0	0.0	0.0	0.6	0.0	0.0	0.0	0.0	4400.0
2	77/ 8/15	22	23	0.0	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4700.0
2	77/ 8/15	22	24	0.0	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4310.0
2	77/ 8/15	22	28	0.2	0.0	0.0	0.0	0.0	1.1	0.0	0.0	0.0	0.0	3800.0
2	77/ 8/15	22	30	0.2	0.0	0.0	0.0	0.0	1.8	0.0	0.0	0.0	0.0	4850.0
2	77/ 8/15	22	32	0.2	0.0	0.0	0.0	0.0	3.6	0.0	0.0	0.0	0.0	4200.0
2	77/ 8/15	22	34	0.0	0.4	0.0	0.0	0.0	110.0	0.0	0.0	0.0	0.0	6500.0
2	77/ 8/15	22	36	0.5	0.3	0.0	0.0	0.0	40.0	0.0	0.0	0.0	0.0	6730.0
2	77/ 8/15	22	38	0.5	0.0	0.0	0.0	0.0	14.0	0.0	0.0	0.0	0.0	6190.0
2	77/ 9/18	6	10	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	8490.0
2	77/ 9/18	6	13	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5950.0

TABLE G3- 5. FOUR MILE CREEK WATERSHED HERBICIDE CONCENTRATIONS IN RUNOFF WATER AND SEDIMENT FOR 1977 SITE 4

SITE	DATE	HOUR	MIN	ALACHLOR (PPB IN WATER)	METRIBUZIN (PPB IN WATER)	PROPACHLOR (PPB IN WATER)	CYANAZINE (PPB IN WATER)	ATRAZINE (PPB IN WATER)	ALACHLOR (PPB IN SEDIMENT)	METRIBUZIN (PPB IN SEDIMENT)	PROPACHLOR (PPB IN SEDIMENT)	CYANAZINE (PPB IN SEDIMENT)	ATRAZINE (PPB IN SEDIMENT)	PARAQUAT (PPB IN SEDIMENT)
4	77/ 4/18	19	14	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
4	77/ 4/19	17	40	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
4	77/ 4/19	23	4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
4	77/ 4/20	1	17	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
4	77/ 4/20	4	38	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
4	77/ 4/20	7	47	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
4	77/ 4/20	10	41	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
4	77/ 4/20	14	43	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
4	77/ 4/20	17	40	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
4	77/ 4/21	17	45	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
4	77/ 4/22	18	40	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
4	77/ 4/23	18	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
4	77/ 4/24	18	40	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
4	77/ 4/25	17	57	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
4	77/ 4/26	18	18	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
4	77/ 4/27	18	22	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
4	77/ 4/28	18	7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
4	77/ 4/29	20	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
4	77/ 4/30	18	33	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
4	77/ 5/ 1	18	7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
4	77/ 5/22	17	10	0.3	0.0	0.0	0.0	45.9	0.0	0.0	0.0	0.0	0.0	0.0
4	77/ 5/23	18	12	0.2	0.0	0.0	0.0	15.7	0.0	0.0	0.0	0.0	0.0	0.0
4	77/ 5/24	18	0	0.1	0.0	0.0	0.0	11.4	0.0	0.0	0.0	0.0	0.0	0.0
4	77/ 5/25	17	32	0.1	0.0	0.0	0.0	9.3	0.0	0.0	0.0	0.0	0.0	0.0
4	77/ 6/17	17	42	0.0	0.0	0.0	0.0	1.1	0.0	0.0	0.0	0.0	0.0	0.0
4	77/ 6/18	17	35	0.0	0.0	0.0	12.0	0.7	0.0	0.0	0.0	0.0	0.0	0.0
4	77/ 6/18	18	30	0.0	0.0	0.0	2.6	2.0	0.0	0.0	0.0	0.0	0.0	0.0
4	77/ 7/ 8	18	39	0.0	0.0	0.0	0.0	1.7	0.0	0.0	0.0	0.0	0.0	0.0
4	77/ 7/ 9	18	59	0.0	0.0	0.0	0.0	1.1	0.0	0.0	0.0	0.0	0.0	0.0
4	77/ 7/18	17	45	0.0	0.0	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0
4	77/ 7/19	13	5	0.0	0.0	0.0	0.0	0.6	0.0	0.0	0.0	0.0	0.0	0.0
4	77/ 7/28	21	58	0.0	0.0	0.0	0.0	1.5	0.0	0.0	0.0	0.0	0.0	0.0
4	77/ 7/29	5	10	0.0	0.0	0.0	0.0	0.7	0.0	0.0	0.0	0.0	0.0	0.0
4	77/ 7/29	12	30	0.0	0.0	0.0	0.0	0.9	0.0	0.0	0.0	0.0	0.0	0.0
4	77/ 7/29	18	16	0.0	0.0	0.0	0.0	1.5	0.0	0.0	0.0	0.0	0.0	0.0
4	77/ 7/30	17	49	0.0	0.0	0.0	0.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0
4	77/ 8/ 1	20	40	0.0	0.0	0.0	0.0	0.9	0.0	0.0	0.0	0.0	0.0	0.0
4	77/ 8/ 1	22	19	0.0	0.0	0.0	0.0	1.5	0.0	0.0	0.0	0.0	0.0	0.0
4	77/ 8/ 2	8	6	0.0	0.0	0.0	0.0	0.8	0.0	0.0	0.0	0.0	0.0	0.0
4	77/ 8/ 2	17	50	0.0	0.0	0.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0
4	77/ 8/ 3	18	16	0.0	0.0	0.0	0.0	2.2	0.0	0.0	0.0	0.0	0.0	0.0
4	77/ 8/ 4	17	52	0.0	0.0	0.0	0.0	2.9	0.0	0.0	0.0	0.0	0.0	0.0
4	77/ 8/ 5	14	31	0.0	0.0	0.0	0.0	2.6	0.0	0.0	0.0	0.0	0.0	0.0
4	77/ 8/ 5	18	4	0.0	0.0	0.0	0.0	2.3	0.0	0.0	0.0	0.0	0.0	0.0
4	77/ 8/ 6	8	20	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0
4	77/ 8/ 7	18	5	0.0	0.0	0.0	0.0	3.0	0.0	0.0	0.0	0.0	0.0	0.0
4	77/ 8/ 8	6	20	0.0	0.0	0.0	0.0	1.3	0.0	0.0	0.0	0.0	0.0	0.0
4	77/ 8/ 8	8	27	0.0	0.0	0.0	0.0	1.2	0.0	0.0	0.0	0.0	0.0	0.0
4	77/ 8/ 8	10	40	0.0	0.0	0.0	0.0	1.3	0.0	0.0	0.0	0.0	0.0	0.0
4	77/ 8/ 8	15	1	0.0	0.0	0.0	0.0	1.8	0.0	0.0	0.0	0.0	0.0	0.0
4	77/ 8/ 8	18	3	0.0	0.0	0.0	0.0	1.8	0.0	0.0	0.0	0.0	0.0	0.0
4	77/ 8/ 9	7	33	0.0	0.0	0.0	0.0	1.1	0.0	0.0	0.0	0.0	0.0	0.0
4	77/ 8/ 9	10	40	0.0	0.0	0.0	0.0	1.4	0.0	0.0	0.0	0.0	0.0	0.0

TABLE G3- 6. CONCLUDED

SITE	DATE	HOUR	MIN	ALACHLOR	METRIBUZIN	PROPACHLOR	CYANAZINE	ATRAZINE	ALACHLOR	METRIBUZIN	PROPACHLOR	CYANAZINE	ATRAZINE	PARAQUAT
				PPB IN WATER					PPB IN SEDIMENT					
4	77/ 8/ 9	18	31	0.0	0.0	0.0	0.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0
4	77/ 8/10	7	35	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
4	77/ 8/10	17	58	0.0	0.0	0.0	0.0	1.4	0.0	0.0	0.0	0.0	0.0	0.0
4	77/ 8/11	17	45	0.0	0.0	0.0	0.0	2.4	0.0	0.0	0.0	0.0	0.0	0.0
4	77/ 8/12	17	45	0.0	0.0	0.0	0.0	1.5	0.0	0.0	0.0	0.0	0.0	0.0
4	77/ 8/13	17	45	0.0	0.0	0.0	0.0	2.3	0.0	0.0	0.0	0.0	0.0	0.0
4	77/ 8/14	18	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
4	77/ 8/15	23	7	0.0	0.0	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0
4	77/ 8/15	23	56	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0
4	77/ 8/16	1	28	0.0	0.0	0.0	0.6	0.0	0.0	0.0	0.0	0.0	150.0	0.0
4	77/ 8/16	2	25	0.0	0.0	0.0	0.0	1.2	0.0	0.0	0.0	0.0	0.0	0.0
4	77/ 8/16	3	52	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0	0.0
4	77/ 8/16	8	1	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0
4	77/ 8/16	11	18	0.0	0.0	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0
4	77/ 8/16	17	5	0.0	0.0	0.0	0.0	1.3	0.0	0.0	0.0	0.0	0.0	0.0
4	77/ 8/16	19	36	0.0	0.0	0.0	0.0	1.7	0.0	0.0	0.0	0.0	0.0	0.0
4	77/ 8/16	22	11	0.0	0.0	0.0	0.0	2.5	0.0	0.0	0.0	0.0	0.0	0.0
4	77/ 8/17	9	15	0.0	0.0	0.0	0.0	0.8	0.0	0.0	0.0	0.0	0.0	0.0
4	77/ 8/17	18	37	0.0	0.0	0.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0
4	77/ 8/18	9	27	0.0	0.0	0.0	0.0	0.8	0.0	0.0	0.0	0.0	0.0	0.0
4	77/ 8/18	18	11	0.0	0.0	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0
4	77/ 8/19	18	35	0.0	0.0	0.0	0.0	0.7	0.0	0.0	0.0	0.0	0.0	0.0
4	77/ 8/20	18	0	0.0	0.0	0.0	0.0	0.8	0.0	0.0	0.0	0.0	0.0	0.0
4	77/ 8/21	18	59	0.0	0.0	0.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0
4	77/ 8/22	17	40	0.0	0.0	0.0	0.0	1.2	0.0	0.0	0.0	0.0	0.0	0.0
4	77/ 8/28	7	25	0.0	0.0	0.0	0.0	0.8	0.0	0.0	0.0	0.0	0.0	0.0
4	77/ 8/28	12	50	0.0	0.0	0.0	0.0	0.6	0.0	0.0	0.0	0.0	0.0	0.0
4	77/ 8/28	22	5	0.0	0.0	0.0	0.0	0.4	0.0	0.0	0.0	0.0	0.0	0.0
4	77/ 9/18	1	56	0.0	0.0	0.0	0.6	0.8	0.0	0.0	0.0	50.0	0.0	0.0
4	77/ 9/18	4	0	0.0	0.0	0.0	1.0	1.5	0.0	0.0	0.0	140.0	0.0	0.0
4	77/ 9/29	18	19	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
4	77/10/ 1	18	49	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

TABLE G3- 7. FOUR MILE CREEK WATERSHED HERBICIDE CONCENTRATIONS IN RUNOFF WATER AND SEDIMENT FOR 1978 SITE 1

SITE	DATE	HOUR	MIN	ALACHLOR (PPB IN WATER)	METRIBUZIN (PPB IN WATER)	PROPACHLOR (PPB IN WATER)	CYANAZINE (PPB IN WATER)	ATRAZINE (PPB IN WATER)	ALACHLOR (PPB IN SEDIMENT)	METRIBUZIN (PPB IN SEDIMENT)	PROPACHLOR (PPB IN SEDIMENT)	CYANAZINE (PPB IN SEDIMENT)	ATRAZINE (PPB IN SEDIMENT)	PARAQUAT (PPB IN SEDIMENT)
1	78/ 5/27	16	39	90.0	130.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	12500.0
1	78/ 5/27	16	41	57.7	92.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	11000.0
1	78/ 5/27	16	44	150.0	140.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	11000.0
1	78/ 5/27	16	47	70.0	70.0	0.0	0.0	0.0	140.0	20.0	0.0	0.0	0.0	8700.0
1	78/ 5/27	16	49	210.0	240.0	0.0	0.0	0.0	400.0	60.0	0.0	0.0	0.0	11900.0
1	78/ 5/27	16	51	180.0	280.0	0.0	0.0	0.0	590.0	90.0	0.0	0.0	0.0	10800.0
1	78/ 5/27	16	53	140.0	160.0	0.0	0.0	0.0	630.0	90.0	0.0	0.0	0.0	9700.0
1	78/ 5/27	16	55	110.0	110.0	0.0	0.0	0.0	400.0	30.0	0.0	0.0	0.0	8850.0
1	78/ 5/27	17	10	510.0	230.0	0.0	0.0	0.0	1930.0	80.0	0.0	0.0	0.0	16000.0
1	78/ 5/27	17	28	540.0	190.0	0.0	0.0	0.0	1110.0	90.0	0.0	0.0	0.0	21170.0
1	78/ 5/27	17	33	560.0	170.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	22640.0
1	78/ 5/27	17	41	750.0	200.0	0.0	0.0	0.0	1690.0	0.0	0.0	0.0	0.0	22600.0
1	78/ 5/27	17	52	780.0	210.0	0.0	0.0	0.0	2590.0	0.0	0.0	0.0	0.0	22160.0
1	78/ 5/31	22	24	210.0	75.3	0.0	0.0	0.0	360.0	20.0	0.0	0.0	0.0	9000.0
1	78/ 5/31	22	27	170.0	66.0	0.0	0.0	0.0	400.0	30.0	0.0	0.0	0.0	10000.0
1	78/ 5/31	22	30	230.0	58.8	0.0	0.0	0.0	210.0	10.0	0.0	0.0	0.0	9330.0
1	78/ 5/31	22	33	200.0	77.0	0.0	0.0	0.0	320.0	0.0	0.0	0.0	0.0	7160.0
1	78/ 5/31	22	41	140.0	35.7	0.0	0.0	0.0	140.0	0.0	0.0	0.0	0.0	7330.0
1	78/ 5/31	22	46	260.0	74.7	0.0	0.0	0.0	40.0	0.0	0.0	0.0	0.0	8880.0
1	78/ 5/31	22	51	210.0	58.8	0.0	0.0	0.0	180.0	400.0	0.0	0.0	0.0	12340.0
1	78/ 5/31	22	56	210.0	43.4	0.0	0.0	0.0	260.0	50.0	0.0	0.0	0.0	11480.0
1	78/ 5/31	23	3	150.0	31.4	0.0	0.0	0.0	520.0	40.0	0.0	0.0	0.0	11000.0
1	78/ 6/15	1	21	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	10330.0
1	78/ 6/15	1	26	23.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	9000.0
1	78/ 6/15	1	31	32.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	8000.0
1	78/ 6/15	1	37	0.0	3.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	8000.0
1	78/ 6/15	1	44	0.0	3.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	8330.0
1	78/ 6/15	1	47	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6670.0
1	78/ 6/15	1	53	15.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	7830.0
1	78/ 6/15	1	56	37.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	9000.0
1	78/ 6/15	2	2	29.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	10000.0
1	78/ 6/15	2	6	62.5	2.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	13500.0
1	78/ 6/15	2	11	63.4	3.6	0.0	0.0	0.0	260.0	0.0	0.0	0.0	0.0	15500.0
1	78/ 6/15	2	17	74.6	3.4	0.0	0.0	0.0	210.0	0.0	0.0	0.0	0.0	17000.0
1	78/ 6/15	2	26	61.5	5.1	0.0	0.0	0.0	360.0	0.0	0.0	0.0	0.0	18520.0
1	78/ 6/15	2	35	58.6	2.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	17690.0
1	78/ 6/15	2	45	45.1	3.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	13180.0
1	78/ 6/15	2	55	42.9	2.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	18190.0
1	78/ 6/15	3	5	43.8	3.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	18130.0
1	78/ 6/15	3	15	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	28720.0
1	78/ 6/20	0	58	0.0	0.0	0.0	0.0	0.0	120.0	50.0	0.0	0.0	0.0	9330.0
1	78/ 6/20	1	1	20.8	5.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	8000.0
1	78/ 6/20	1	5	33.3	4.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	8330.0
1	78/ 6/20	1	9	57.0	20.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5420.0
1	78/ 6/20	1	13	57.4	10.7	0.0	0.0	0.0	90.0	50.0	0.0	0.0	0.0	13330.0
1	78/ 6/20	1	15	62.5	13.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	12000.0
1	78/ 6/20	1	17	56.8	15.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	11670.0
1	78/ 6/20	1	19	42.0	19.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	11700.0
1	78/ 6/20	1	22	27.8	1.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	10110.0
1	78/ 6/20	1	28	30.7	2.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	8550.0
1	78/ 6/20	1	32	25.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	10350.0
1	78/ 6/20	1	42	39.8	19.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	19160.0
1	78/ 6/20	1	51	22.5	1.8	0.0	0.0	0.0	160.0	60.0	0.0	0.0	0.0	14040.0

TABLE G3- 7. CONCLUDED

SITE	DATE	HOUR	MIN	ALACHLOR	METRIBUZIN	PROPACHLOR	CYANAZINE	ATRAZINE	ALACHLOR	METRIBUZIN	PROPACHLOR	CYANAZINE	ATRAZINE	PARAQUAT
				PPB IN WATER					PPB IN SEDIMENT					
1	78/ 6/20	2	1	15.3	2.6	0.0	0.0	0.0	210.0	0.0	0.0	0.0	0.0	15990.0
1	78/ 6/20	2	12	23.9	4.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	8120.0
1	78/ 6/20	2	22	19.2	3.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	12460.0
1	78/ 6/20	2	32	29.3	4.4	0.0	0.0	0.0	1050.0	0.0	0.0	0.0	0.0	11400.0
1	78/ 6/20	2	42	26.3	0.4	0.0	0.0	0.0	480.0	0.0	0.0	0.0	0.0	8730.0
1	78/ 6/20	2	57	30.9	3.6	0.0	0.0	0.0	510.0	0.0	0.0	0.0	0.0	0.0
1	78/ 8/26	21	18	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

TABLE G3- 8. FOUR MILE CREEK WATERSHED HERBICIDE CONCENTRATIONS IN RUNOFF WATER AND SEDIMENT FOR 1978 SITE 2

SITE	DATE	HOUR	MIN	ALACHLOR (PPB IN WATER)	METRIBUZIN (PPB IN WATER)	PROPACHLOR (PPB IN WATER)	CYANAZINE (PPB IN WATER)	ATRAZINE (PPB IN WATER)	ALACHLOR (PPB IN SEDIMENT)	METRIBUZIN (PPB IN SEDIMENT)	PROPACHLOR (PPB IN SEDIMENT)	CYANAZINE (PPB IN SEDIMENT)	ATRAZINE (PPB IN SEDIMENT)	PARAQUAT
2	78/ 5/13	1	47	0.0	0.0	370.0	290.0	0.0	0.0	0.0	1300.0	2170.0	0.0	62630.0
2	78/ 5/13	2	9	0.0	0.0	790.0	130.0	0.0	0.0	0.0	1460.0	2530.0	0.0	53550.0
2	78/ 5/13	2	37	0.0	0.0	690.0	100.0	0.0	0.0	0.0	930.0	1550.0	0.0	65250.0
2	78/ 5/13	3	55	0.0	0.0	680.0	100.0	0.0	0.0	0.0	1350.0	2340.0	0.0	45450.0
2	78/ 5/27	16	36	0.0	0.0	80.0	100.0	0.0	0.0	0.0	90.0	1110.0	0.0	26000.0
2	78/ 5/27	16	38	0.0	0.0	80.0	370.0	0.0	0.0	0.0	310.0	1550.0	0.0	27300.0
2	78/ 5/27	16	40	0.0	0.0	40.0	80.0	0.0	0.0	0.0	70.0	1740.0	0.0	27000.0
2	78/ 5/27	16	42	0.0	0.0	80.0	250.0	0.0	0.0	0.0	210.0	1940.0	0.0	25000.0
2	78/ 5/27	16	44	0.0	0.0	80.0	150.0	0.0	0.0	0.0	190.0	1370.0	0.0	27300.0
2	78/ 5/27	16	46	0.0	0.0	50.0	160.0	0.0	0.0	0.0	250.0	1710.0	0.0	23000.0
2	78/ 5/27	16	48	0.0	0.0	20.0	20.0	0.0	0.0	0.0	230.0	2030.0	0.0	18300.0
2	78/ 5/27	16	50	0.0	0.0	60.0	240.0	0.0	0.0	0.0	0.0	1030.0	0.0	19000.0
2	78/ 5/27	16	52	0.0	0.0	70.0	190.0	0.0	0.0	0.0	90.0	1300.0	0.0	17000.0
2	78/ 5/27	16	54	0.0	0.0	30.0	50.0	0.0	0.0	0.0	120.0	1000.0	0.0	18000.0
2	78/ 5/27	16	56	0.0	0.0	40.0	70.0	0.0	0.0	0.0	130.0	690.0	0.0	5000.0
2	78/ 5/27	16	58	0.0	0.0	40.0	150.0	0.0	0.0	0.0	180.0	1290.0	0.0	1700.0
2	78/ 5/27	17	0	0.0	0.0	60.0	150.0	0.0	0.0	0.0	230.0	970.0	0.0	17000.0
2	78/ 5/27	17	2	0.0	0.0	60.0	220.0	0.0	0.0	0.0	580.0	1460.0	0.0	17000.0
2	78/ 5/27	17	4	0.0	0.0	30.0	90.0	0.0	0.0	0.0	320.0	860.0	0.0	17000.0
2	78/ 5/27	17	6	0.0	0.0	60.0	60.0	0.0	0.0	0.0	440.0	1650.0	0.0	19000.0
2	78/ 5/27	17	8	0.0	0.0	50.0	150.0	0.0	0.0	0.0	610.0	1640.0	0.0	21300.0
2	78/ 5/27	17	24	0.0	0.0	20.0	70.0	0.0	0.0	0.0	440.0	1710.0	0.0	23900.0
2	78/ 5/27	17	31	0.0	0.0	20.0	80.0	0.0	0.0	0.0	190.0	1460.0	0.0	25000.0
2	78/ 5/27	17	36	0.0	0.0	20.0	100.0	0.0	0.0	0.0	350.0	1300.0	0.0	24300.0
2	78/ 5/27	17	46	0.0	0.0	0.0	30.0	0.0	0.0	0.0	230.0	1120.0	0.0	49000.0
2	78/ 5/27	17	56	0.0	0.0	0.0	140.0	0.0	0.0	0.0	0.0	0.0	0.0	27100.0
2	78/ 5/27	18	2	0.0	0.0	0.0	310.0	0.0	0.0	0.0	170.0	1490.0	0.0	18600.0
2	78/ 5/27	18	8	0.0	0.0	0.0	210.0	0.0	0.0	0.0	150.0	1320.0	0.0	25900.0
2	78/ 5/27	18	17	0.0	0.0	0.0	180.0	0.0	0.0	0.0	140.0	850.0	0.0	27600.0
2	78/ 5/31	22	20	0.0	0.0	14.4	290.0	0.0	0.0	0.0	0.0	900.0	0.0	17700.0
2	78/ 5/31	22	24	0.0	0.0	20.1	250.0	0.0	0.0	0.0	0.0	1790.0	0.0	18000.0
2	78/ 5/31	22	26	0.0	0.0	16.4	190.0	0.0	0.0	0.0	0.0	1460.0	0.0	15500.0
2	78/ 5/31	22	28	0.0	0.0	14.2	190.0	0.0	0.0	0.0	0.0	1690.0	0.0	16000.0
2	78/ 5/31	22	30	0.0	0.0	12.6	80.0	0.0	0.0	0.0	0.0	2270.0	0.0	17000.0
2	78/ 5/31	22	32	0.0	0.0	100.1	120.0	0.0	0.0	0.0	0.0	990.0	0.0	18500.0
2	78/ 5/31	22	34	0.0	0.0	15.6	120.0	0.0	0.0	0.0	0.0	1370.0	0.0	19000.0
2	78/ 5/31	22	35	0.0	0.0	22.0	200.0	0.0	0.0	0.0	0.0	1410.0	0.0	17000.0
2	78/ 5/31	22	40	0.0	0.0	23.6	220.0	0.0	0.0	0.0	0.0	1370.0	0.0	20000.0
2	78/ 5/31	22	44	0.0	0.0	19.4	50.0	0.0	0.0	0.0	0.0	2260.0	0.0	20000.0
2	78/ 5/31	22	49	0.0	0.0	14.8	310.0	0.0	0.0	0.0	0.0	1520.0	0.0	18300.0
2	78/ 5/31	22	54	0.0	0.0	12.2	250.0	0.0	0.0	0.0	0.0	1660.0	0.0	24400.0
2	78/ 5/31	23	7	0.0	0.0	12.5	180.0	0.0	0.0	0.0	0.0	2170.0	0.0	29400.0
2	78/ 6/15	1	18	0.0	0.0	0.0	90.0	0.0	0.0	0.0	0.0	650.0	0.0	14500.0
2	78/ 6/15	1	21	0.0	0.0	0.0	80.0	0.0	0.0	0.0	0.0	600.0	0.0	8500.0
2	78/ 6/15	1	24	0.0	0.0	0.0	60.0	0.0	0.0	0.0	0.0	570.0	0.0	18500.0
2	78/ 6/15	1	26	0.0	0.0	0.0	80.0	0.0	0.0	0.0	0.0	360.0	0.0	16800.0
2	78/ 6/15	1	28	0.0	0.0	0.0	50.0	0.0	0.0	0.0	0.0	630.0	0.0	18500.0
2	78/ 6/15	1	31	0.0	0.0	0.0	40.0	0.0	0.0	0.0	0.0	910.0	0.0	18000.0
2	78/ 6/15	1	34	0.0	0.0	0.0	40.0	0.0	0.0	0.0	0.0	1000.0	0.0	18900.0
2	78/ 6/15	1	38	0.0	0.0	0.0	80.0	0.0	0.0	0.0	0.0	1060.0	0.0	21400.0
2	78/ 6/15	1	43	0.0	0.0	0.0	70.0	0.0	0.0	0.0	0.0	830.0	0.0	22600.0
2	78/ 6/15	1	47	0.0	0.0	0.0	50.0	0.0	0.0	0.0	0.0	330.0	0.0	0.0
2	78/ 6/15	1	50	0.0	0.0	0.0	50.0	0.0	0.0	0.0	0.0	540.0	0.0	16400.0

TABLE G3- 8. CONCLUDED

SITE	DATE	HOUR	MIN	ALACHLOR	METRIBUZIN	PROPACHLOR	CYANAZINE	ATRAZINE	ALACHLOR	METRIBUZIN	PROPACHLOR	CYANAZINE	ATRAZINE	PARAQUAT
				PPB IN WATER					PPB IN SEDIMENT					
2	78/ 6/15	1	51	0.0	0.0	0.0	50.0	0.0	0.0	0.0	0.0	620.0	0.0	17030.0
2	78/ 6/15	1	52	0.0	0.0	0.0	40.0	0.0	0.0	0.0	0.0	430.0	0.0	13700.0
2	78/ 6/15	1	53	0.0	0.0	0.0	60.0	0.0	0.0	0.0	0.0	0.0	0.0	16000.0
2	78/ 6/15	1	54	0.0	0.0	0.0	30.0	0.0	0.0	0.0	0.0	520.0	0.0	14500.0
2	78/ 6/15	1	56	0.0	0.0	0.0	30.0	0.0	0.0	0.0	0.0	670.0	0.0	14500.0
2	78/ 6/15	1	58	0.0	0.0	0.0	40.0	0.0	0.0	0.0	0.0	810.0	0.0	15500.0
2	78/ 6/15	1	59	0.0	0.0	0.0	40.0	0.0	0.0	0.0	0.0	590.0	0.0	14500.0
2	78/ 6/15	2	0	0.0	0.0	0.0	40.0	0.0	0.0	0.0	0.0	550.0	0.0	15500.0
2	78/ 6/15	2	2	0.0	0.0	0.0	40.0	0.0	0.0	0.0	0.0	710.0	0.0	16000.0
2	78/ 6/15	2	4	0.0	0.0	0.0	40.0	0.0	0.0	0.0	0.0	810.0	0.0	18300.0
2	78/ 6/15	2	6	0.0	0.0	0.0	40.0	0.0	0.0	0.0	0.0	770.0	0.0	18400.0
2	78/ 6/15	2	8	0.0	0.0	0.0	30.0	0.0	0.0	0.0	0.0	1090.0	0.0	20000.0
2	78/ 6/15	2	10	0.0	0.0	0.0	40.0	0.0	0.0	0.0	0.0	670.0	0.0	19400.0
2	78/ 6/15	2	12	0.0	0.0	0.0	40.0	0.0	0.0	0.0	0.0	580.0	0.0	21700.0
2	78/ 6/15	2	14	0.0	0.0	0.0	40.0	0.0	0.0	0.0	0.0	810.0	0.0	17600.0
2	78/ 6/15	2	16	0.0	0.0	0.0	40.0	0.0	0.0	0.0	0.0	1100.0	0.0	20900.0
2	78/ 6/15	2	21	0.0	0.0	0.0	30.0	0.0	0.0	0.0	0.0	1060.0	0.0	21200.0
2	78/ 6/15	2	30	0.0	0.0	0.0	30.0	0.0	0.0	0.0	0.0	660.0	0.0	25400.0
2	78/ 6/15	2	39	0.0	0.0	0.0	30.0	0.0	0.0	0.0	0.0	610.0	0.0	24200.0
2	78/ 6/15	2	49	0.0	0.0	0.0	20.0	0.0	0.0	0.0	0.0	2590.0	0.0	32200.0
2	78/ 6/15	3	0	0.0	0.0	0.0	30.0	0.0	0.0	0.0	0.0	0.0	0.0	30100.0
2	78/ 6/15	3	10	0.0	0.0	0.0	30.0	0.0	0.0	0.0	0.0	0.0	0.0	31200.0
2	78/ 6/15	3	21	0.0	0.0	0.0	30.0	0.0	0.0	0.0	0.0	0.0	0.0	31200.0
2	78/ 6/15	3	31	0.0	0.0	0.0	50.0	0.0	0.0	0.0	0.0	0.0	0.0	33300.0
2	78/ 6/15	3	42	0.0	0.0	0.0	30.0	0.0	0.0	0.0	0.0	0.0	0.0	44200.0
2	78/ 6/20	0	57	0.0	0.0	0.0	81.1	0.0	0.0	0.0	0.0	920.0	0.0	14200.0
2	78/ 6/20	1	0	0.0	0.0	0.0	40.0	0.0	0.0	0.0	0.0	790.0	0.0	14610.0
2	78/ 6/20	1	3	0.0	0.0	0.0	40.0	0.0	0.0	0.0	0.0	870.0	0.0	15190.0
2	78/ 6/20	1	5	0.0	0.0	0.0	33.2	0.0	0.0	0.0	0.0	640.0	0.0	14820.0
2	78/ 6/20	1	7	0.0	0.0	0.0	60.0	0.0	0.0	0.0	0.0	1120.0	0.0	15690.0
2	78/ 6/20	1	10	0.0	0.0	0.0	53.4	0.0	0.0	0.0	0.0	820.0	0.0	15380.0
2	78/ 6/20	1	12	0.0	0.0	0.0	73.2	0.0	0.0	0.0	0.0	880.0	0.0	17160.0
2	78/ 6/20	1	14	0.0	0.0	0.0	82.6	0.0	0.0	0.0	0.0	930.0	0.0	19110.0
2	78/ 6/20	1	20	0.0	0.0	0.0	71.4	0.0	0.0	0.0	0.0	730.0	0.0	17630.0
2	78/ 6/20	1	27	0.0	0.0	0.0	62.8	0.0	0.0	0.0	0.0	1120.0	0.0	16430.0
2	78/ 6/20	1	33	0.0	0.0	0.0	50.0	0.0	0.0	0.0	0.0	930.0	0.0	17730.0
2	78/ 6/20	1	40	0.0	0.0	0.0	73.4	0.0	0.0	0.0	0.0	600.0	0.0	28260.0
2	78/ 6/20	1	49	0.0	0.0	0.0	56.5	0.0	0.0	0.0	0.0	0.0	0.0	19520.0
2	78/ 6/20	2	0	0.0	0.0	0.0	45.7	0.0	0.0	0.0	0.0	0.0	0.0	20980.0
2	78/ 6/20	2	10	0.0	0.0	0.0	59.3	0.0	0.0	0.0	0.0	580.0	0.0	16180.0
2	78/ 6/20	2	20	0.0	0.0	0.0	36.5	0.0	0.0	0.0	0.0	0.0	0.0	19650.0
2	78/ 6/20	2	30	0.0	0.0	0.0	40.6	0.0	0.0	0.0	0.0	1020.0	0.0	18970.0
2	78/ 6/20	2	40	0.0	0.0	0.0	31.5	0.0	0.0	0.0	0.0	520.0	0.0	19670.0
2	78/ 6/20	2	55	0.0	0.0	0.0	25.5	0.0	0.0	0.0	0.0	270.0	0.0	33230.0

TABLE G3- 9. FOUR MILE CREEK WATERSHED HERBICIDE CONCENTRATIONS IN RUNOFF WATER AND SEDIMENT FOR 1978 SITE 4

SITE	DATE	HOUR	MIN	ALACHLOR	METRIBUZIN	PROPACHLOR	CYANAZINE	ATRAZINE	ALACHLOR	METRIBUZIN	PROPACHLOR	CYANAZINE	ATRAZINE	PARAQUAT
				PPB IN WATER					PPB IN SEDIMENT					
4	78/ 5/ 1	17	50	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
4	78/ 5/ 2	19	56	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
4	78/ 5/ 3	17	27	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
4	78/ 5/ 4	18	2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
4	78/ 5/ 5	18	27	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
4	78/ 5/ 6	18	13	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
4	78/ 5/ 7	17	23	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
4	78/ 5/ 8	17	53	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
4	78/ 5/ 9	17	35	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
4	78/ 5/10	17	51	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
4	78/ 5/11	17	57	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
4	78/ 5/12	18	7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
4	78/ 5/13	11	57	8.1	0.0	1.2	2.3	4.2	0.0	0.0	0.0	0.0	0.0	0.0
4	78/ 5/13	20	26	3.8	0.0	0.5	1.1	1.8	0.0	0.0	0.0	0.0	0.0	0.0
4	78/ 5/14	7	56	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
4	78/ 5/14	17	58	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
4	78/ 5/15	17	28	0.0	0.0	0.0	1.0	0.4	0.0	0.0	0.0	0.0	0.0	0.0
4	78/ 5/16	17	55	0.0	0.0	0.0	0.6	0.3	0.0	0.0	0.0	0.0	0.0	0.0
4	78/ 5/17	17	57	0.0	0.0	0.0	0.5	0.4	0.0	0.0	0.0	0.0	0.0	0.0
4	78/ 5/18	17	40	0.0	0.0	0.0	0.7	0.2	0.0	0.0	0.0	0.0	0.0	0.0
4	78/ 5/19	17	40	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0
4	78/ 5/20	17	59	0.0	0.0	0.0	0.3	0.3	0.0	0.0	0.0	0.0	0.0	0.0
4	78/ 5/21	17	42	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0
4	78/ 5/22	18	21	0.0	0.0	0.0	0.3	0.3	0.0	0.0	0.0	0.0	0.0	0.0
4	78/ 5/24	17	45	0.0	0.0	0.0	0.3	0.2	0.0	0.0	0.0	0.0	0.0	0.0
4	78/ 5/25	18	0	0.0	0.0	0.0	0.1	0.2	0.0	0.0	0.0	0.0	0.0	0.0
4	78/ 5/26	18	47	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0
4	78/ 5/27	18	0	0.0	0.0	0.0	0.3	0.2	0.0	0.0	0.0	0.0	0.0	0.0
4	78/ 5/28	18	5	0.0	0.0	0.0	0.3	0.2	0.0	0.0	0.0	0.0	0.0	0.0
4	78/ 5/29	17	20	2.4	0.0	0.0	0.7	0.9	0.0	0.0	0.0	0.0	0.0	0.0
4	78/ 5/30	18	2	1.6	0.0	0.0	1.0	0.7	0.0	0.0	0.0	0.0	0.0	0.0
4	78/ 5/31	17	45	1.0	0.0	0.0	0.8	0.6	0.0	0.0	0.0	0.0	0.0	0.0
4	78/ 6/ 1	18	35	14.9	0.0	0.0	4.3	3.2	0.0	0.0	0.0	0.0	70.0	0.0
4	78/ 6/ 2	18	31	1.7	0.0	0.0	0.6	1.1	0.0	0.0	0.0	0.0	0.0	0.0
4	78/ 6/ 3	18	22	1.1	0.0	0.0	0.6	0.9	0.0	0.0	0.0	0.0	0.0	0.0
4	78/ 6/ 4	17	26	1.3	0.0	0.0	0.1	0.5	0.0	0.0	0.0	0.0	0.0	0.0
4	78/ 6/ 5	18	30	1.0	0.0	0.0	0.1	0.5	0.0	0.0	0.0	0.0	0.0	0.0
4	78/ 6/ 6	18	3	1.0	0.0	0.0	0.1	0.4	0.0	0.0	0.0	0.0	0.0	0.0
4	78/ 6/ 7	18	25	0.8	0.0	0.0	0.2	0.4	0.0	0.0	0.0	0.0	0.0	0.0
4	78/ 6/ 8	18	15	0.7	0.0	0.0	0.1	0.4	0.0	0.0	0.0	0.0	0.0	0.0
4	78/ 6/ 9	18	5	0.6	0.0	0.0	0.1	0.4	0.0	0.0	0.0	0.0	0.0	0.0
4	78/ 6/10	18	31	3.4	0.0	0.0	0.2	0.4	0.0	0.0	0.0	0.0	0.0	0.0
4	78/ 6/11	18	20	3.4	0.0	0.0	0.2	0.4	0.0	0.0	0.0	0.0	0.0	0.0
4	78/ 6/12	17	27	0.9	0.0	0.0	0.2	0.3	0.0	0.0	0.0	0.0	0.0	0.0
4	78/ 6/13	18	0	1.3	0.0	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0
4	78/ 6/14	18	1	0.3	0.0	0.0	0.0	0.4	0.0	0.0	0.0	0.0	0.0	0.0
4	78/ 6/15	2	8	0.0	0.0	0.0	0.0	0.5	0.0	0.0	0.0	0.0	0.0	0.0
4	78/ 6/15	3	8	0.0	0.0	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0
4	78/ 6/15	4	4	0.0	0.0	0.0	0.9	0.5	0.0	0.0	0.0	0.0	0.0	0.0
4	78/ 6/15	5	11	0.0	0.0	0.0	1.0	0.5	0.0	0.0	0.0	0.0	0.0	0.0
4	78/ 6/15	6	40	22.0	0.0	0.0	5.5	70.0	90.0	0.0	0.0	70.0	490.0	420.0
4	78/ 6/15	8	40	54.5	0.0	0.0	9.0	140.0	0.0	0.0	0.0	90.0	1370.0	0.0
4	78/ 6/15	10	52	29.1	0.0	0.0	6.4	80.0	0.0	0.0	0.0	0.0	590.0	0.0

TABLE G3- 9. CONTINUED

SITE	DATE	HOUR	MIN	ALACHLOR	METRIBUZIN	PROPACHLOR	CYANAZINE	ATRAZINE	ALACHLOR	METRIBUZIN	PROPACHLOR	CYANAZINE	ATRAZINE	PARAQUAT
				PPB IN WATER					PPB IN SEDIMENT					
4	78/ 6/15	14	14	21.8	0.0	7.6	1.7	50.0	0.0	0.0	0.0	0.0	630.0	0.0
4	78/ 6/15	17	48	6.7	0.0	0.0	0.0	17.3	0.0	0.0	0.0	0.0	0.0	0.0
4	78/ 6/15	22	6	3.0	0.0	1.7	0.5	7.2	0.0	0.0	0.0	0.0	0.0	0.0
4	78/ 6/16	9	28	0.8	0.0	1.0	0.2	3.5	0.0	0.0	0.0	0.0	0.0	0.0
4	78/ 6/16	17	39	0.0	0.0	0.0	0.0	2.4	0.0	0.0	0.0	0.0	0.0	0.0
4	78/ 6/17	17	28	0.0	0.0	0.0	0.0	1.6	0.0	0.0	0.0	0.0	0.0	0.0
4	78/ 6/18	17	17	0.0	0.0	0.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0
4	78/ 6/19	17	43	0.0	0.0	0.0	0.3	0.7	0.0	0.0	0.0	0.0	0.0	0.0
4	78/ 6/20	1	55	0.0	0.0	0.0	0.0	4.8	0.0	0.0	0.0	0.0	180.0	0.0
4	78/ 6/20	3	0	4.4	0.0	0.0	0.5	4.2	0.0	0.0	0.0	0.0	140.0	0.0
4	78/ 6/20	4	20	12.4	0.0	0.0	1.7	4.7	0.0	0.0	0.0	50.0	130.0	0.0
4	78/ 6/20	5	43	7.6	0.0	0.0	1.7	4.7	0.0	0.0	0.0	30.0	90.0	0.0
4	78/ 6/20	7	30	25.9	8.7	7.4	3.2	34.5	0.0	0.0	0.0	0.0	190.0	0.0
4	78/ 6/20	8	59	4.7	0.0	7.0	2.4	4.7	0.0	0.0	0.0	0.0	250.0	0.0
4	78/ 6/20	10	46	18.3	0.7	5.9	1.4	21.4	0.0	0.0	0.0	0.0	100.0	0.0
4	78/ 6/20	14	17	12.8	0.0	0.0	1.1	22.1	0.0	0.0	0.0	40.0	140.0	0.0
4	78/ 6/20	18	4	10.2	0.0	0.0	0.6	5.9	0.0	0.0	0.0	0.0	190.0	0.0
4	78/ 6/20	22	53	5.9	0.0	0.0	0.4	3.5	0.0	0.0	0.0	0.0	230.0	0.0
4	78/ 6/21	10	0	7.8	0.0	0.0	0.0	3.2	0.0	0.0	0.0	0.0	280.0	0.0
4	78/ 6/21	18	37	0.0	0.0	0.0	0.0	1.4	0.0	0.0	0.0	0.0	0.0	0.0
4	78/ 6/22	17	4	0.0	0.0	0.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0
4	78/ 6/23	18	1	0.0	0.0	0.0	0.0	0.9	0.0	0.0	0.0	0.0	0.0	0.0
4	78/ 6/24	18	7	0.7	0.0	0.5	0.2	0.8	0.0	0.0	0.0	0.0	0.0	0.0
4	78/ 6/25	18	59	0.0	0.0	0.0	0.0	0.6	0.0	0.0	0.0	0.0	0.0	0.0
4	78/ 6/26	18	18	0.0	0.0	0.0	0.0	0.6	0.0	0.0	0.0	0.0	0.0	0.0
4	78/ 6/27	16	15	0.0	0.0	0.0	0.0	0.6	0.0	0.0	0.0	0.0	0.0	0.0
4	78/ 6/28	18	23	0.0	0.0	1.0	0.0	2.1	0.0	0.0	0.0	0.0	120.0	0.0
4	78/ 6/28	19	54	0.0	0.0	0.9	0.0	1.1	0.0	0.0	0.0	0.0	100.0	0.0
4	78/ 6/28	21	25	1.1	0.0	3.2	5.0	7.0	0.0	0.0	0.0	30.0	60.0	0.0
4	78/ 6/29	0	10	5.9	0.0	4.6	6.8	3.2	0.0	0.0	0.0	50.0	60.0	0.0
4	78/ 6/29	4	40	5.5	0.0	2.4	1.3	1.3	0.0	0.0	0.0	40.0	60.0	0.0
4	78/ 6/29	10	30	0.6	0.0	0.7	0.2	1.3	0.0	0.0	0.0	0.0	0.0	0.0
4	78/ 6/29	19	4	0.8	0.0	0.0	0.7	1.2	0.0	0.0	0.0	0.0	0.0	0.0
4	78/ 6/30	17	30	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
4	78/ 7/ 2	18	35	0.6	0.0	0.0	1.6	0.7	0.0	0.0	0.0	0.0	0.0	0.0
4	78/ 7/ 3	17	27	0.0	0.0	0.0	0.2	0.6	0.0	0.0	0.0	0.0	0.0	0.0
4	78/ 7/ 4	19	17	0.0	0.0	0.0	0.0	0.6	0.0	0.0	0.0	0.0	0.0	0.0
4	78/ 7/ 5	18	32	0.0	0.0	0.0	0.0	0.5	0.0	0.0	0.0	0.0	0.0	0.0
4	78/ 7/ 6	17	46	0.0	0.0	0.0	0.1	0.7	0.0	0.0	0.0	0.0	0.0	0.0
4	78/ 7/ 7	18	34	0.0	0.0	0.0	0.4	0.6	0.0	0.0	0.0	0.0	0.0	0.0
4	78/ 7/ 8	17	39	0.0	0.0	0.0	0.0	0.6	0.0	0.0	0.0	0.0	0.0	0.0
4	78/ 7/ 9	18	12	0.0	0.0	0.0	0.0	0.4	0.0	0.0	0.0	0.0	0.0	0.0
4	78/ 7/10	18	41	0.0	0.0	0.0	0.0	0.5	0.0	0.0	0.0	0.0	0.0	0.0
4	78/ 7/11	18	20	0.0	0.0	0.0	0.0	0.6	0.0	0.0	0.0	0.0	0.0	0.0
4	78/ 7/12	18	3	0.0	0.0	0.0	0.0	0.5	0.0	0.0	0.0	0.0	0.0	0.0
4	78/ 7/13	18	31	0.0	0.0	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0
4	78/ 7/14	17	45	0.0	0.0	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0
4	78/ 7/15	17	27	0.0	0.0	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0
4	78/ 7/16	18	30	0.0	0.0	0.0	0.0	0.7	0.0	0.0	0.0	0.0	0.0	0.0
4	78/ 7/17	17	41	0.0	0.0	0.0	0.0	0.4	0.0	0.0	0.0	0.0	0.0	0.0
4	78/ 7/18	17	24	0.0	0.0	0.0	0.0	0.4	0.0	0.0	0.0	0.0	0.0	0.0
4	78/ 7/19	18	4	0.0	0.0	0.0	0.0	0.8	0.0	0.0	0.0	0.0	0.0	0.0
4	78/ 7/20	16	44	0.0	0.0	0.0	0.0	1.8	0.0	0.0	0.0	0.0	0.0	0.0

TABLE G3- 9. CONCLUDED

SITE	DATE	HOUR	MIN	ALACHLOR	METRIBUZIN	PROPACHLOR	CYANAZINE	ATRAZINE	ALACHLOR	METRIBUZIN	PROPACHLOR	CYANAZINE	ATRAZINE	PARAQUAT
				PPB IN WATER					PPB IN SEDIMENT					
4	78/ 7/21	17	7	0.0	0.0	0.0	0.0	0.6	0.0	0.0	0.0	0.0	0.0	0.0
4	78/ 7/22	18	0	0.0	0.0	0.0	0.0	0.4	0.0	0.0	0.0	0.0	0.0	0.0
4	78/ 7/23	18	24	0.0	0.0	0.0	0.0	0.4	0.0	0.0	0.0	0.0	0.0	0.0
4	78/ 7/24	18	26	0.0	0.0	0.0	0.0	0.6	0.0	0.0	0.0	0.0	0.0	0.0
4	78/ 7/25	18	11	0.0	0.0	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0
4	78/ 7/26	18	50	0.0	0.0	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0
4	78/ 7/27	18	44	0.0	0.0	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0
4	78/ 7/28	19	9	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0
4	78/ 7/29	18	36	0.0	0.0	0.0	0.0	0.4	0.0	0.0	0.0	0.0	0.0	0.0
4	78/ 7/30	19	40	0.0	0.0	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0
4	78/ 7/31	18	15	0.0	0.0	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0
4	78/ 8/ 1	19	30	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0
4	78/ 8/ 2	18	2	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0
4	78/ 8/ 3	18	21	0.0	0.0	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0
4	78/ 8/ 4	18	1	0.0	0.0	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0
4	78/ 8/ 5	18	1	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0
4	78/ 8/ 6	17	55	0.0	0.0	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0
4	78/ 8/14	17	20	2.1	0.0	0.0	0.3	0.4	0.0	0.0	0.0	0.0	0.0	0.0
4	78/ 8/22	18	27	0.5	0.0	0.0	0.1	0.4	0.0	0.0	0.0	0.0	0.0	0.0
4	78/ 8/27	1	21	0.0	0.0	0.0	0.5	2.3	0.0	0.0	0.0	0.0	0.0	0.0
4	78/ 9/ 1	17	59	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
4	78/ 9/14	2	52	0.0	0.0	0.0	0.3	1.5	0.0	0.0	0.0	0.0	30.0	0.0
4	78/ 9/14	13	49	0.0	0.0	0.0	0.0	1.4	0.0	0.0	0.0	0.0	0.0	0.0

APPENDIX H

WATERSHED INSTRUMENTATION, FIELD OPERATIONS AND SOIL SAMPLING SCHEDULES

WATERSHED INSTRUMENTATION AND FIELD OPERATIONS

1975

October 9	-	Location of field-sized watersheds (sites 1, 2 and 3) was completed and agreements made with owners and operators.
November 7	-	Construction of flume approach boxes began.
November 26	-	Flumes installed onto completed approach boxes with dike work also completed.

1976

January 1	-	Official sampling began with daily samples of creek flow taken at site 4.
March 16	-	Stage recorders installed and operating at sites 1, 2 and 3. Tile sampling began.
March 23	-	Raingages 33, 35 and 36 installed.
April 2	-	Ports drilled on the side of each flume to serve as single-stage samplers at sites 1, 2 and 3.
	-	Fertilizer spread at sites 1 and 2.
April 9	-	Sheds for housing samplers at sites 1, 2 and 3 completed.
April 29	-	Herbicide applied to field at site 2.
April 30	-	Automatic PS-69 sampler installation at site 2 completed. Precipitation sampler installed at site 2.
May 5	-	A US D-74 depth-integrating sampler was suspended from the bridge railing at site 4.
May 12	-	Fence constructed around shed and flume at site 3.
May 13	-	Raingages 31, 32 and 34 installed.
May 18	-	Automatic PS-69 sampler installation at site 1 completed.
May 20	-	Herbicide applied to field at site 1.
June 4	-	Instrumentation of auxiliary gaging stations (sites 7 and 8) completed.

1976

June 8 - Topographic survey at sites 1 and 2 completed.

June 9 - Automatic PS-69 sampler installed at site 3.

June 10 - Stage recorders at USGS stations (sites 5 and 6) were made operational.

June 15 - Aerial photographs of the watershed, for use with the farm survey, were taken.

June 23 - Weather station at the cooperator's farm completed.

August 12 - Began interviewing farmers in the watershed to compile the crop inventory.

August 17 - Topographic survey of the watershed at site 3 was completed.

September 23 - Yield samples of soybean grain and residue taken from site 1.

October 1 - Yield samples of corn grain and residue taken from site 2.

October 12 - Waterway around the equipment at site 8 was leveled.

November 9 - Soil survey of sites 1 and 2 was made.

November 15 - Soil thermometers installed at site 1.

December 9 - Snow gage installed at site 1.

December 22 - Snow gage and soil thermometers installed at the weather station.

1977

January 25 - The particle size analyzer (Sedigraph 5000) was set up by company representatives.

February 21 - Visual accumulation tube was received and later made operational.

March 26 - Channel measurement stations were located along the creek and surveying began.

April 1 - Fertilizer was spread at site 2.

April 5-6 - Control at the Traer USGS gaging station (site 4) was repaired by ISU personnel.

April 19 - Fertilizer was spread at site 1.

April 28 - A 9 m travel trailer was parked at site 2 to provide shelter during storms.

May 3 - Herbicide was applied to site 1.

May 10 - Herbicide was applied to site 2.

May 17 - Completed sampling of the stream bed at ten of the channel measurement stations.

July 27 - Aerial photographs of the watershed were taken.

1977

August 10 - Farmer interviews for the crop inventory began.

September 15 - Soybean yield samples were taken at site 2.

September 20 - Small brass chains were installed in the stream bed of the creek at three locations, to study deposition and scouring.

September 27 - Corn yield samples were taken at site 1.

1978

January 5 - Dug through snow to provide access to tile outlets for winter sampling.

April 3 - Fertilizer was spread at site 1.

April 4 - The control at site 8 was reconstructed to provide better flow measurements.

April 21 - The control at site 7 was reconstructed to provide better flow measurements.

April 26 - Fertilizer was spread at site 3.

April 28 - Channel measurement stations were surveyed.

May 1 - Fertilizer was spread at site 2.

May 3-4 - The control at the Traer USGS gaging station (site 4) was repaired by USGS and ISU personnel.

May 18 - Herbicide was applied at site 1.

June 7 - Sampling of the stream bed at ten of the channel measurement stations was completed.

June 9 - Aerial photographs of the watershed were taken.

July 24 - Surveyed the reconstructed control at site 7. Located the small chains on the surface of the stream bed to determine whether any deposition or scouring of the bed had occurred.

August 22 - Farmer interviews for the farm survey began.

September 27 - Soybean yield samples were taken at site 1.

October 24 - Corn yield samples were taken at site 2.

SCHEDULE OF SOIL SAMPLING

Site 1

1976 --

January 22 - Samples to determine fertilizer recommendations were taken.

May 19 - Background core samples for pesticide analysis were taken to 30 cm.

1976 --

May 20	-	Volume samples for pesticide analysis were taken immediately after herbicide application.
May 21	-	Volume samples for pesticide analysis were taken.
May 23	-	Volume samples for pesticide analysis were taken.
May 24	-	Volume samples for pesticide analysis were taken.
May 26	-	Volume samples for pesticide analysis were taken.
May 28	-	Core samples for nutrient analysis were taken to 150 cm.
May 30	-	Core samples for pesticide analysis were taken to 30 cm.
June 8	-	Core samples for pesticide analysis were taken to 30 cm.
June 15	-	Core samples for pesticide analysis were taken to 30 cm.
June 21	-	Core samples for pesticide and nutrient analysis were taken to 30 cm.
July 2	-	Core samples for pesticide analysis were taken to 30 cm.
July 13	-	Core samples for pesticide analysis were taken to 30 cm.
July 27	-	Core samples for pesticide analysis were taken to 30 cm.
July 30	-	Core samples for nutrient analysis were taken to 30 cm.
August 31	-	Core samples for pesticide and nutrient analysis were taken to 7.5 cm.
November 23	-	Core samples for nutrient analysis were taken to 150 cm.

1977 --

April 22	-	Background core samples for pesticide analysis were taken to 30 cm.
May 3	-	Volume samples for pesticide analysis were taken immediately after herbicide application.
May 4	-	Volume samples for pesticide analysis were taken.
May 5	-	Volume samples for pesticide analysis were taken.
May 6	-	Volume samples for pesticide analysis were taken.
May 7	-	Volume samples for pesticide analysis were taken.
May 9	-	Volume samples for pesticide analysis were taken.
May 11	-	Volume samples for pesticide analysis were taken.
May 13	-	Volume samples for pesticide analysis were taken.
May 16	-	Volume samples for pesticide analysis were taken.
May 19	-	Volume samples for pesticide analysis were taken.
May 23	-	Core samples for pesticide analysis were taken to 30 cm.

1977 --

May 24	-	Core samples for nutrient analysis were taken to 150 cm.
May 31	-	Core samples for nutrient analysis were taken to 30 cm.
June 10	-	Core samples for pesticide analysis were taken to 30 cm.
June 20	-	Core samples for pesticide and nutrient analysis were taken to 30 cm.
July 6	-	Core samples for pesticide analysis were taken to 30 cm.
July 15	-	Core samples for nutrient analysis were taken to 150 cm.
August 18	-	Core samples for pesticide and nutrient analysis were taken to 30 cm.
November 3	-	Core samples for nutrient analysis were taken to 150 cm.

1978 --

April 14	-	Core samples for nutrient analysis were taken to 150 cm.
May 18	-	Background core samples for pesticide analysis were taken to 30 cm.
	-	Volume samples for pesticide analysis were taken immediately after herbicide application.
May 19	-	Volume samples for pesticide analysis were taken.
May 20	-	Volume samples for pesticide analysis were taken.
May 21	-	Volume samples for pesticide analysis were taken.
May 22	-	Volume samples for pesticide analysis were taken.
May 24	-	Volume samples for pesticide analysis were taken.
May 26	-	Volume samples for pesticide analysis were taken.
May 28	-	Core samples for pesticide analysis were taken to 30 cm.
June 1	-	Core samples for pesticide analysis were taken to 30 cm.
June 12	-	Core samples for pesticide and nutrient analysis were taken to 30 cm.
June 16	-	Core samples for pesticide analysis were taken to 30 cm.
June 21	-	Core samples for pesticide analysis were taken to 30 cm.
July 7	-	Core samples for pesticide and nutrient analysis were taken to 30 cm.
July 27	-	Core samples for nutrient analysis were taken to 150 cm.
August 1	-	Core samples for pesticide analysis were taken to 30 cm.
August 29	-	Core samples for pesticide and nutrient analysis were taken to 30 cm.
November 9	-	Core samples for nutrient analysis were taken to 150 cm.

Site 2

1976 --

January 22	-	Samples to determine fertilizer recommendations were taken.
April 27	-	Background core samples for pesticide analysis were taken to 30 cm.
April 29	-	Volume samples for pesticide analysis were taken immediately after herbicide application.
April 30	-	Volume samples for pesticide analysis were taken.
May 1	-	Volume samples for pesticide analysis were taken.
May 3	-	Volume samples for pesticide analysis were taken.
May 5	-	Volume samples for pesticide analysis were taken.
May 7	-	Volume samples for pesticide analysis were taken.
May 10	-	Volume samples for pesticide analysis were taken.
May 13	-	Core samples for pesticide analysis were taken to 30 cm.
May 17	-	Core samples for pesticide analysis were taken to 30 cm.
May 26	-	Core samples for pesticide analysis were taken to 30 cm.
May 28	-	Core samples for nutrient analysis were taken to 150 cm.
May 30	-	Core samples for pesticide analysis were taken to 30 cm.
June 7	-	Core samples for pesticide analysis were taken to 30 cm.
June 15	-	Core samples for pesticide analysis were taken to 30 cm.
June 22	-	Core samples for pesticide and nutrient analysis were taken to 30 cm.
July 2	-	Core samples for pesticide analysis were taken to 30 cm.
July 13	-	Core samples for nutrient analysis were taken to 150 cm.
July 27	-	Core samples for pesticide and nutrient analysis were taken to 30 cm.
August 31	-	Core samples for pesticide and nutrient analysis were taken to 30 cm.
November 23	-	Core samples for nutrient analysis were taken to 150 cm.

1977 --

May 10	-	Background core samples for pesticide analysis were taken to 30 cm. Volume samples for pesticide analysis were taken immediately after herbicide application.
May 12	-	Volume samples for pesticide analysis were taken.
May 13	-	Volume samples for pesticide analysis were taken.
May 13	-	Volume samples for pesticide analysis were taken.

1977 --

May 14	-	Volume samples for pesticide analysis were taken.
May 16	-	Volume samples for pesticide analysis were taken.
May 18	-	Volume samples for pesticide analysis were taken.
May 20	-	Volume samples for pesticide analysis were taken.
May 23	-	Core samples for pesticide analysis were taken to 30 cm.
May 24	-	Core samples for nutrient analysis were taken to 150 cm.
May 31	-	Core samples for pesticide analysis were taken to 30 cm.
June 10	-	Core samples for pesticide analysis were taken to 30 cm.
June 20	-	Core samples for pesticide and nutrient analysis were taken to 30 cm.
July 6	-	Core samples for pesticide analysis were taken to 30 cm.
July 26	-	Core samples for nutrient analysis were taken to 150 cm.
August 18	-	Core samples for pesticide and nutrient analysis were taken to 30 cm.
November 3	-	Core samples for nutrient analysis were taken to 150 cm.

1978 --

April 12	-	Core samples for nutrient analysis were taken to 150 cm.
May 2	-	Background core samples for pesticide analysis were taken to 30 cm.
	-	Volume samples for pesticide analysis were taken immediately after herbicide application.
May 3	-	Volume samples for pesticide analysis were taken.
May 4	-	Volume samples for pesticide analysis were taken.
May 5	-	Volume samples for pesticide analysis were taken.
May 6	-	Volume samples for pesticide analysis were taken.
May 8	-	Core samples for pesticide analysis were taken to 30 cm.
May 10	-	Volume samples for pesticide analysis were taken.
May 15	-	Core samples for nutrient and pesticide analysis were taken to 30 cm.
May 19	-	Core samples for pesticide analysis were taken to 30 cm.
May 24	-	Core samples for pesticide analysis were taken to 30 cm.
May 28	-	Core samples for pesticide analysis were taken to 30 cm.
June 1	-	Core samples for pesticide analysis were taken to 30 cm.

1978 --

June 12 - Core samples for pesticide and nutrient analysis were taken to 30 cm.

June 16 - Core samples for pesticide analysis were taken to 30 cm.

June 21 - Core samples for pesticide analysis were taken to 30 cm.

July 7 - Core samples for pesticide and nutrient analysis were taken to 30 cm.

July 27 - Core samples for nutrient analysis were taken to 30 cm.

August 1 - Core samples for pesticide analysis were taken to 30 cm.

August 29 - Core samples for pesticide and nutrient analysis were taken to 30 cm.

November 9 - Core samples for nutrient analysis were taken to 150 cm.

Site 3

1976 --

May 28 - Core samples for nutrient analysis were taken to 150 cm.

August 2 - Core samples for nutrient analysis were taken to 150 cm.

November 23 - Core samples for nutrient analysis were taken to 150 cm.

1977 --

May 24 - Core samples for nutrient analysis were taken to 150 cm.

July 21 - Core samples for nutrient analysis were taken to 150 cm.

November 3 - Core samples for nutrient analysis were taken to 150 cm.

1978 --

April 12 - Core samples for nutrient analysis were taken to 150 cm.

July 31 - Core samples for nutrient analysis were taken to 150 cm.

November 9 - Core samples for nutrient analysis were taken to 150 cm.